National Operations & Maintenance Specification

SOLICITATION NUMBER: GS-07P-15-JU-D-0021

SERVICE: OPERATIONS & MAINTENANCE AND RELATED SERVICES, EL PASO, TX

LOCATION(S):

White Federal Building, 700 East San Antonio Avenue, El Paso, TX TX0272ZZ
U S Courthouse, 511 East San Antonio Avenue, El Paso, TX TX0069ZZ
Armendariz Courthouse, 525 Magoffin Avenue, El Paso, TX TX0319ZZ
BOTA Port of Entry, 3600 East Paisano Drive, El Paso, TX 07020817
PDN Port of Entry, 1000 South El Paso Street, El Paso, TX 07020828
Ysleta Port of Entry, 797 South Zaragoza Road, El Paso, TX 07020832
DCL Port of Entry, 1090 Mesa, El Paso, TX TX2356ES
Fort Hancock Port of Entry, Termination of FM 1088, Fort Hancock, TX 07020857
T&G Port of Entry, FM 1109 at New Bridge, Tornillo, TX 07020866
Santa Teresa Port of Entry, 104 Santa Teresa, Santa Teresa, NM 07020848
Columbus Port of Entry, Palomas and 2nd Street, Columbus, NM 07020859
Border Patrol Sector Headquarters, 300 West Madrid Street, Marfa, TX 07020826

PERIOD OF PERFORMANCE:

January 1, 2016 through December 31, 2016, Base Year
January 1, 2017 through December 31, 2017, Option Year 1
January 1, 2018 through December 31, 2018, Option Year 2
January 1, 2019 through December 31, 2019, Option Year 3
January 1, 2020 through December 31, 2020, Option Year 4
January 1, 2021 through December 31, 2021, Option Year 5
January 1, 2022 through December 31, 2022, Option Year 6
January 1, 2023 through December 31, 2023, Option Year 7
January 1, 2024 through December 31, 2024, Option Year 8
January 1, 2025 through December 31, 2025, Option Year 9

SOLICITATION ISSUE DATE: June 17, 2015

OFFER RECEIPT DATE/TIME: July 21, 2015/03:00 P.M. CST

SOLICITATION TABLE OF CONTENTS

(Sections A through M)

C.10. EQUIPMENT INVENTORY
C.11. MONTHLY PROGRESS REPORTS
C.12. PERFORMANCE REVIEW MEETINGS
C.13. EQUIPMENT CONDITION ASSESSMENT
C.14. OCCUPANT FEEDBACK PROGRAM
C.15. REFERENCE LIBRARY
C.16. REVIEW OF DESIGN DOCUMENTS
C.17. BUILDING MANAGEMENT SUPPORT SERVICES
C.18. INSPECTIONS ASSISTANCE FOR SPACE BUILD OUTS
C.19. EMERGENCY SHUTDOWN INSTRUCTIONS AND TOUR CHECKLISTS
C.20. LABELING OF ELECTRICAL CIRCUITS
C.21.OPERATIONAL REQUIREMENTS
  C.21.1 General
  C.21.2 RESERVED
  C.21.3 Continuity of Operations (COOP)
  C.21.4 Emergency Operations Plan
  C.21.5 Tenant Environment
  C.21.6 Energy and Water Efficiency
C.22. SYSTEM PERFORMANCE STANDARDS OR PROCEDURES
  C.22.1 Control Systems
  C.22.2 Smart Buildings
C.23. SERVICE REQUESTS
  C.23.1 General
  C.23.2 Emergency Service Request
  C.23.3 Emergency Call Back (after hours)
  C.23.4 Urgent Service Request Response
  C.23.5 Routine Service Request Response
C.24. TOURS
  C.24.1 General
  C.24.2 Operating Logs and Tour Check Sheets
  C.24.3 Reserved
  C.24.4 Condensate Pans
  C.24.5 Monitoring of Central Plant Equipment
C.25. DEMAND RESPONSE PROGRAMS
C.26. CURTAILMENT PLAN
C.27. BAS ALARM RESPONSE
C.28.ADVANCED METERING PROGRAM
  C.28.1 RESERVED
C.29. PROTECTION AND DAMAGE
C.30. NEGLIGENCE
C.31. KEY CONTROL
C.32. DISRUPTIVE OR HAZARDOUS TOOLS
C.33. SCHEDULED DISRUPTION TO UTILITIES, LIGHTING, FIRE PROTECTION & LIFE SAFETY SYSTEMS OR SPACE CONDITIONING
C.34. PLUMBING AND RESTROOMS
C.35. MAINTENANCE PROGRAM
  C.35.1 General
  C.35.2 Maintenance Standard
  C.35.3 Application of Diagnostic Software
  C.35.4 BAS Control Systems
    C.35.4.1 BAS Operating Standards
      C.35.4.1.1 GSA-hosted Systems Requirements
      C.35.4.1.2 RESERVED
    C.35.4.2 Reporting

H.18.3 Pricing
H.18.4 Parts and Materials
H.18.5 Labor
H.18.6 Subcontracts
H.18.7 Cost Documentation
H.18.8 Competitive Bids
H. 18.9 Method of Ordering and Invoicing
H.19. RESERVED
H.20. Strike Contingency Plan (SCP)
H.21. Occupancy Emergency Plan (OEP)
H.22. Contractor Pandemic Plan

I. Contract Clauses
52.223-1 Bio-based Product Certification.
52.223-2 Affirmative Procurement of Bio-based Products under Service and Construction Contracts
52.223-3 Hazardous Material Identification and Material Safety Data
52.223-5 Pollution Prevention and Right-to-Know Information
52.223-7 Notice of Radioactive Materials
52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items
52.223-10 Waste Reduction Program
52.223-11 Ozone-Depleting Substances
52.223-15 Energy Efficiency in Energy-Consuming Products
52.223-17 Affirmative Procurement of EPA-designated Items in Service and Construction Contracts

J. List of Attachments (List of Documents, Exhibits and Other Attachments)
Exhibit 1
J.1. Quality Assurance Surveillance Plan (QASP)
Contract Deliverables Reference
Exhibit 2
J.2. Green Purchasing Report
Exhibit 3
J.3. RESERVED
Exhibit 4
J.4. Environmentally Sustainable Products and GSA Attribute Preferences
Exhibit 5
J.5. Building Information Sheet
Exhibit 6
J.6. RESERVED
Exhibit 7
J.7. Building Operating Plan Template
Exhibit 8
J.8 Smart Buildings
Exhibit 9
J.9 Water Treatment
Exhibit 10
J.10 Energy & Water Operational Performance Targets
Appendix A - Building Energy Use History
Appendix B – Building Water Use History
Exhibit 11
J.11 Energy 7 Water Efficiency Use Plan
Attachment 1 – Energy and Water Efficiency Use Plan Template
Exhibit 12
J.12 Energy and Water Efficiency Monthly Report
Attachment 1 – Energy and Water Efficiency Reporting Template

Attachment 2 – Clarification for Completing Monthly Energy and Water Efficiency Report
Attachment 3 – Example Energy and Water Efficiency Report – Contractor Input
Exhibit 13
J.13 Annual Energy & Water Efficiency Report
Attachment 1 – Annual Report on Energy and Wager Efficiency Template
Attachment 2 – Clarification for Completing the Annual Report on Energy and Water Efficiency
Exhibit 14
J.14 Qualifications of Electrical Testing Technicians (ETT)
Exhibit 15
J.15 Miscellaneous Best Practices – Shave Energy
Exhibit 16
J.16 RESERVED
Exhibit 17
J.17 Preventive Maintenance Schedule
Exhibit 18
J.18 Solid Waste and Recycling Report

K. REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF BIDDERS/OFFERORS

L. INSTRUCTIONS, CONDITIONS, AND NOTICES TO BIDDERS/OFFERORS

M. EVALUATION FACTORS FOR AWARD

A. SOLICITATION/CONTRACT FORM

A.1. Standard Form 33

SOLICITATION, OFFER AND AWARD

1. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)	RATING	PAGE OF PAGES
▶		

2. CONTRACT NUMBER	3. SOLICITATION NUMBER	4. TYPE OF SOLICITATION	5. DATE ISSUED	6. REQUISITION/PURCHASE NUMBER
	GS-07P-15-JU-D-0021	☐ SEALED BID (IFB) ☒ NEGOTIATED (RFP)	06/17/2015	

7. ISSUED BY	CODE	8. ADDRESS OFFER TO *(If other than item 7)*
GSA/PUBLIC BUILDING SERVICE 819 TAYLOR ST, RM 12B, FORT WORTH, TX 76102		GSA/PUBLIC BUILDING SERVICE 819 TAYLOR ST, RM 12B, FORT WORTH, TX 76102 Attn: Stephan Harris

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

SOLICITATION

9. Sealed offers in original and 2 copies for furnishings the supplies or services in the Schedule will be received at the place specified in item 8, or if hand carried, in the depository located in See Block 8 until 3:00 pm *(Hour)* local time 07/21/2015 *(Date)*

CAUTION - LATE Submissions, Modifications, and Withdrawals: See Section L, Provision No. 52.214-7 or 52.215-1. All offers are subject to all terms and conditions contained in this solicitation.

10. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE *(NO COLLECT CALLS)* AREA CODE	NUMBER	EXTENSION	C. E-MAIL ADDRESS
▶	Stephan J. Harris	817	9780106		stephan.harris@gsa.gov

11. TABLE OF CONTENTS

(X)	SEC.	DESCRIPTION	PAGE(S)	(X)	SEC.	DESCRIPTION	PAGE(S)
		PART I - THE SCHEDULE				PART II - CONTRACT CLAUSES	
x	A	SOLICITATION/CONTRACT FORM		x	I	CONTRACT CLAUSES	
x	B	SUPPLIES OR SERVICES AND PRICES/COSTS				PART III - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACH.	
x	C	DESCRIPTION/SPECS./WORK STATEMENT		x	J	LIST OF ATTACHMENTS	
x	D	PACKAGING AND MARKING				PART IV - REPRESENTATIONS AND INSTRUCTIONS	
x	E	INSPECTION AND ACCEPTANCE		x	K	REPRESENTATIONS, CERTIFICATIONS AND OTHER STATEMENTS OF OFFERORS	
x	F	DELIVERIES OR PERFORMANCE					
x	G	CONTRACT ADMINISTRATION DATA		x	L	INSTRUCTIONS, CONDITIONS, AND NOTICES TO OFFERORS	
x	H	SPECIAL CONTRACT REQUIREMENTS		x	M	EVALUATION FACTORS FOR AWARD	

OFFER *(Must be fully completed by offeror)*

NOTE: Item 12 does not apply if the solicitation includes the provisions at 52.214-16, Minimum Bid Acceptance Period.

12. In compliance with the above, the undersigned agrees, if this offer is accepted within 180 calendar days *(60 calendar days unless a different period is inserted by the offeror)* from the date for receipt of offers specified above, to furnish any or all items upon which prices are offered at the set opposite each item, delivered at the designated point(s), within the time specified in the schedule.

13. DISCOUNT FOR PROMPT PAYMENT *(See Section I, Clause No. 52.232-8)* ▶	10 CALENDAR DAYS (%)	20 CALENDAR DAYS (%)	30 CALENDAR DAYS (%)	CALENDAR DAYS(%)

14. ACKNOWLEDGMENT OF AMENDMENTS *(The offeror acknowledges receipt of amendments to the SOLICITATION for offerors and related documents numbered and dated):*	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

15A. NAME AND ADDRESS OF OFFER-OR	CODE	FACILITY	16. NAME AND THE TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)*

15B. TELEPHONE NUMBER AREA CODE	NUMBER	EXTENSION	☐ 15C. CHECK IF REMITTANCE ADDRESS IS DIFFERENT FROM ABOVE - ENTER SUCH ADDRESS IN SCHEDULE.	17. SIGNATURE	18. OFFER DATE

AWARD *(To be completed by Government)*

19. ACCEPTED AS TO ITEMS NUMBERED	20. AMOUNT	21. ACCOUNTING AND APPROPRIATION

22. AUTHORITY FOR USING OTHER THAN FULL OPEN COMPETITION: ☐ 10 U.S.C. 2304 (c) ☐ 41 U.S.C. 3304(a) ( )	23. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)* ▶	ITEM

24. ADMINISTERED BY *(If other than Item 7)*	25. PAYMENT WILL BE MADE BY	CODE

26. NAME OF CONTRACTING OFFICER *(Type or print)*	27. UNITED STATES OF AMERICA *(Signature of Contracting Officer)*	28. AWARD DATE

IMPORTANT - Award will be made on this Form, or on Standard Form 26, or by other authorized official written notice.

B. SERVICES, ORDERING AND PRICES

B.1. PRICING OF SERVICES. Figure B-3, Pricing of Services, must be completed by the contractor and submitted to the Contracting Officer (CO) as part of the Price Proposal. The Contracting Officer will fill-in Section B.1.1 through B.1.7 at time of award for base and option periods.

B.1.1. Basic Services:

Initial Period:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option I:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option II:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option III:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option IV:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option V:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option VI:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option VII:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option VIII:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

Option IX:

Monthly Operations and Maintenance	Annual Total Maintenance
$	$

~~B.1.2. Additional Services~~ (Reserved)

~~Initial Period:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option I:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option II:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~

~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option III:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option IV:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option V:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~

~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option VI:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option VII:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option VIII:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~

~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

~~Option IX:~~

~~In House Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~Electrician~~	~~$~~	~~$~~
~~HVAC Mechanic~~	~~$~~	~~$~~
~~General Maintenance Worker~~	~~$~~	~~$~~

~~Subcontracted Disciplines~~	~~Regular Hourly Rate 6:00 am to 6:00 pm~~	~~Overtime Hourly Rate 6:00 pm to 6:00 am~~
~~HVAC Technician~~	~~$~~	~~$~~
~~Chiller Technician~~	~~$~~	~~$~~
~~Boiler Technician~~	~~$~~	~~$~~
~~Fire Alarm Technician~~	~~$~~	~~$~~
~~BAS Controls Technician~~	~~$~~	~~$~~
~~Laborer~~	~~$~~	~~$~~

B.1.3. Markup Coefficient

Markup coefficient includes all material handling fees, including General and Administrative (G&A) fees, and profit. No additional markup coefficient is allowable under this contract. The markup coefficient rate is fixed and applies to supplies, materials, and equipment only on reimbursable repairs above the $2,500 threshold has been met or when additional services are ordered. The markup coefficient does not apply to labor.

The Contracting Officer will fill in the Contractor's markup coefficient at the time of award for the base and option periods. The Contractor's Markup Coefficient is:

Period	Markup Coefficient (maximum of 10%)
Initial Period	%
Option I	%

Option II	%
Option III	%
Option IV	%
Option V	%
Option VI	%
Option VII	%
Option VIII	%
Option IX	%

B.2. CONTRACTOR STAFFING DECLARATION
Figure B-1, Contractor Staffing Declaration, must be completed by the contractor and submitted to the Contracting Officer (CO) **21** calendar days prior to the contract start date. This form must also be submitted to the CO when any modifications to the contract by GSA result in changes in staffing.

B.3. WAGE ADJUSTMENTS
Wage adjustments will be considered at the beginning of each renewal option period, if exercised, in accordance with FAR 52.222-43 Fair Labor Standards Act and Service Contract Act – Price Adjustment (Multi-year and Option Year).

Figure B-2, SCA DOL/CBA Combination Wage Adjustment Spreadsheet, is a sample worksheet to illustrate how wage adjustments will be calculated as a result of changes in wages that result from Department of Labor Wage Determinations or Collective Bargaining Agreements.

B.4. ADDITION/REMOVAL OF BUILDINGS
GSA may add or remove buildings from this contract at any time. For a building to be added to the contract, GSA will provide the building information to the Contractor and request a price proposal from the Contractor for the requested services in line with the current pricing. At this time, there is no anticipation to add or delete any additional facilities to this contract. However, if there are any facilities added, they will not exceed **25%** of the total contract dollar value, including options.

B.5. ADDITION/REDUCTION OF INVENTORY OR STAFFING
Refer to Section C.45 "Changes by the Government". Requests for adjustment in staffing and or price adjustments based on additions or reductions in inventory will be considered annually at option time.

C. DESCRIPTION/SPECIFICATION/STATEMENT OF WORK

Introduction

This is a Performance Based Service Contract and the success of the Contract depends on the satisfaction of the requirements, but also the satisfaction of our shared customer. Rather than a mere list of activities, this is a written expression of the GSA's expectation of the service to be performed by the Contractor. A higher level of effective communication between the Government and Contractor is essential for partnering and for the performance based service contract to succeed. The success of this Contract is shared between the Government and the Contractor.

More emphasis is placed on the Contractor's self-management of quality, not the usual external inspection by Government Inspectors, although that is a part of this Contract as well. All parties should act proactively to reduce service cost, therein providing an incentive for the Contractor.

The Contractor, through innovation, technology, or other means, shall perform the required maintenance of these facilities by following the Guiding Principles for Sustainable Existing Buildings:

I. Employ Integrated Assessment, Operation and Management Principles

a. ~~In conjunction with the Contract Officer (CO) or designee establish operational performance goals for energy, water, material use and recycling, and indoor environmental quality, and ensure incorporation of these goals throughout the life of the Contract.~~ Ensure incorporation of GSA's performance goals for energy, water, material use and recycling, and indoor environmental quality goals throughout the life of this Contract.
b. Ensure that operating decisions are carried out with regard to sustainable operations.
c. Meet ASHRAE standards as noted throughout the SOW for thermal comfort and indoor air quality.
d. Use low emitting materials Volatile organic compounds (VOC) or other for maintenance. In particular, use products that have low pollutant emissions, adhesives, sealants, and solvents.
e. Use products meeting or exceeding EPA's recycled content recommendations for building maintenance. For other products such as ceiling tiles, use materials with recycled content. For more information, see EPA's Comprehensive Procurement Guideline website.
f. Use materials with the highest content level per USDA's bio-based content recommendations for maintenance of or use in the building.
g. Use environmentally sustainable products that have a lesser or reduced effect on human health and the environment. See the Green Products Compilation.
h. Provide salvage, reuse and recycling services for waste generated from building operations, maintenance, and repair and discarded equipment.
i. Eliminate the use of ozone depleting compounds where alternative environmentally sustainable products are available consistent with the Clean Air Act.

II. Optimize Energy Performance – GSA is in the process of optimizing energy performance through advance metering and monthly reporting. Operate all equipment to optimize efficiency to reduce energy use and otherwise seek operating costs reductions wherever possible.

III. Protect and Conserve Water where possible inside and outside. Metering systems may be already installed or will be installed in government buildings to aid in reducing consumption. Where available, use EPA's Water Sense-labeled products or other water conserving products.

IV. Be aware that the building(s) and management involved with this Contract may be in the process of establishing new initiatives, instituting plans, and operational procedures to meet energy efficiency goals either through receiving an ENERGY STAR rating, Smart Building/ GSA link technology, or comparable programs. The Contractor will play an integral part of obtaining these goals and should be aware of the programs and processes.

V. The purpose of partnering is to adopt procedures wherein the Scope of Work where the Contractor and Government can work together in achieving Contract objectives. Partnering involves the development of a cooperative management team that seeks to identify common goals and objectives.

VI. This is a fixed-price Contract and while working with the Government in obtaining goals the Contractor is motivated to find improved methods of performance in order to increase its profits. Results of an effective partnership should reflect a "mutual win" situation.

C.1. SCOPE OF WORK

***C.1.1* Contractor Responsibility for Equipment and Systems**. The Contractor shall provide management, supervision, labor, materials, equipment, and supplies and is responsible for the efficient, effective, economical, and satisfactory operation, scheduled and unscheduled maintenance, and repair of equipment and systems located within the property line of the following building(s):

White Federal Building, 700 East San Antonio Avenue, El Paso, TX TX0272ZZ
U S Courthouse, 511 East San Antonio Avenue, El Paso, TX TX0069ZZ
Armendariz Courthouse, 525 Magoffin Avenue, El Paso, TX TX0319ZZ
BOTA Port of Entry, 3600 East Paisano Drive, El Paso, TX 07020817
PDN Port of Entry, 1000 South El Paso Street, El Paso, TX 07020828
Ysleta Port of Entry, 797 South Zaragoza Road, El Paso, TX 07020832
DCL Port of Entry, 1090 Mesa, El Paso, TX TX2356ES
Fort Hancock Port of Entry, Termination of FM 1088, Fort Hancock, TX 07020857
T&G Port of Entry, FM 1109 at New Bridge, Tornillo, TX 07020866
Santa Teresa Port of Entry, 104 Santa Teresa, Santa Teresa, NM 07020848
Columbus Port of Entry, Palomas and 2nd Street, Columbus, NM 07020859
Border Patrol Sector Headquarters, 300 West Madrid Street, Marfa, TX 07020826

a. Electrical systems and equipment.
b. Mechanical, plumbing, Building Automation System (BAS) where applicable (where BAS/ ECMS systems are connected to the GSA network, the Contractor's employees will need to obtain a GSA ENT account to access systems) and heating, ventilation, exhaust systems and air conditioning (HVAC) systems and equipment.
c. Fire protection and life safety systems and equipment.
d. All control systems that are within the scope of this Contract. All Building Automation Systems (BAS), Niagra Tridium Jace controls/system, Public Address Systems, and Computerized Lighting Systems that are within the scope of this Contract.
e. Architectural and structural systems, fixtures, and equipment within the site (to the property line). Limited to $200/3 hrs service call threshold.

f. Service request desk operations as identified in Section C.8.4 to include record keeping using a computerized maintenance management system (CMMS) or by other means as well as other administrative functions.
g. Maintenance of landscape irrigation systems.
~~h. Mechanical equipment for window washing (wall glider, tracks, davits, pedestals, and associated equipment.~~
i. Locks, keys, keycard systems, vehicle barrier systems and static and dynamic bollard systems.
j. Dock levelers and bumpers and roll-up and sliding garage doors.
k. RESERVED
~~l. The Contractor shall maintain all fixed equipment and systems, including playground equipment associated with the Child Care Center. The Contractor shall repair systems upon request and according to work items identified by the annual Child Care Center survey.~~
m. Storm drainage systems - reduce storm water pollution by minimizing discharges and runoff to the storm sewer system and environment.
n. The Contractor shall complete roofing system investigations and repairs.
o. The Contractor shall maintain and repair U.S. flag pole, lighting and pulley system.
p. The Contractor shall maintain kitchen/concessions area drains.
q. The Contractor shall maintain conveying equipment, parking control equipment, ~~and loading dock equipment~~.
r. The Contractor shall update/install software/firmware to latest revision and update software licenses for BAS controls only. The Contractor is **not** responsible for the costs of software, firmware updates, and licensing for the BAS and Tridium Niagra systems. However, the Contractor is responsible for letting Region 7 FMSP office know when updates are required. The Contractor is responsible for keeping the systems operating properly.
s. Sanitary sewage equipment and systems, including kennel waste interceptors.
t. Domestic water filtration/pumping and fire supply tank systems (Tornillo)

C.1.2 Contractor Responsibilities for Management and Communication.

The Contractor Shall:

a. Be responsible to make the management and operational decisions to meet the quality standards required under this contract.
b. Use innovation, technology and other means and methods to develop and perform the most efficient services for the building.
c. Implement an effective Quality Control Plan (QCP). GSA R7 no longer requires quarterly corporate Quality Control visits.
d. Implement an effective service call system, as specified under the Special Requirements section of this contract that results in prompt, professional, and courteous resolution of tenant concerns.
e. Keep the Contracting Officer (CO) or designee informed of current status of the work being performed, provide work schedules, provide a major equipment and critical system break down or impairment form, and provide other pertinent information needed by the CO or designee.
f. Reduce the environmental impacts of work performed under this contract by using, to the maximum extent, environmentally sound practices, processes, and products.
g. Provide training to their employees that will stress stewardship in maintenance practices i.e., the proper use, disposal, recycling of chemicals, dispensing equipment and

packaging. Provide documentation that their employees are completing training in the core competences and participating in continual educational training according to the Federal Building Personnel Training Act. Ensure that their employees are properly licensed and/or certified to operate necessary building systems or equipment for which licensed and/or certified personnel are required by federal, state or local law, codes or ordinances (H.15. Personnel Qualifications).

h. Federal Requirements: The Contractor shall comply with all applicable Federal, state and local laws, regulations and codes, including any supplements or revisions. The Contractor shall obtain all applicable licenses training, and permits. If a change in law or regulation requires the Contractor to implement an action that will result in an increase or decrease in Contract price, the Contractor shall implement the required action and within 30 calendar days submit to the CO or their designee a price proposal for such change. If the CO or their designee determines an equitable adjustment is substantiated a modification to the Contract will be issued.

C.1.3 Excluded from this scope are:

a. Security systems (does not include mechanical components of the door, closers, keepers, hinges, etc.)
b. Telecommunication systems.
c. Equipment owned and operated by tenant agencies.
d. Furnishings (not installed as fixtures).
e. Paper, soap, and hand-sanitizer dispensing equipment in restrooms.
f. Kitchen appliances and equipment (but ductwork above the ceiling, grease traps with associated piping, and any fire suppression or fire alarm equipment are included in the scope).
g. Equipment owned by servicing public utilities.
h. ~~Upgrade of software and software licenses (to include building automation systems (BAS) and DMMS)~~. Tridium Niagra software updates cost, firmware updates cost, and licencing costs.
i. Fitness center equipment.
j. RESERVED.
k. Additional services as needed by various agencies

C.2. Definitions

C.2.1 Acceptance

"Acceptance" means an authorized representative of the Government has inspected and agreed that the work meets all requirements of this contract, to include documentation requirements.

C.2.2 Acts of God

These are unanticipated grave natural disasters or other natural phenomenon of an exceptional, inevitable, and irresistible character; the effects of which could not have been prevented or avoided by the exercise of due care or foresight.

C.2.3 Additional Services

"Additional services" are services that the Contractor will provide at an additional cost to the Government, to include all labor, supervision, supplies and materials specifically identified as

being outside the provisions of the basic services and included in the offeror's overall pricing. The CO or their designee will issue a separate delivery order before work may proceed.

C.2.4 Advanced Meters
Advanced meters are those that have the capability to measure and record interval data (at least hourly for electricity), and communicate the data to a remote location in a format that can be easily integrated into an advanced metering system.

C.2.5 Advanced Metering Systems
A system that collects time-differentiated energy usage data from advanced meters via a network system on either an on-request or defined schedule basis. The system is capable of providing usage information on at least a daily basis and can support desired features and functionality related to energy use management, procurement, and operations, U.S. Department of Energy, EERE: Guidance for Electric Metering in Federal Buildings, (February 3, 2006).

C.2.6 Approval
"Approval" means the Government has reviewed submittals, deliverables, and administrative documents (e.g., insurance certificates, installation schedules, planned utility interruptions, etc.) and has determined the documents conform to contract requirements.

C.2.7 Architectural and Structural
"Architectural and structural" systems include all building structure, envelope, building improvements and finishes, and site improvements (e.g., paving, walkways, asphalt, etc.) to the property line.

C.2.8 Basic Services
The Basic Services of the contract consist of the recurring contract requirements for which the Contractor is paid as a base price, i.e., the requirements established by the contract statement of work and related general and administrative requirements that do not contain provisions for separate reimbursement. Indefinite Quantity requirements (Additional Services and Reimbursable Repairs) are requirements outside of Basic Services, for which payment is made on a case-by-case basis.

C.2.9 Building Automation System (BAS)
The "building automation system" is a system controlling and monitoring building HVAC, and possibly other systems, to include all device, field, and global controllers, instrumentation, networking infrastructure, computers and peripherals, software, programming, database files, and licenses.

C.2.10 GSA Link
The GSA Link initiative is one of GSA's strategic projects. The purpose of this initiative is to leverage automated building analytics technology to measure and substantially lower operational expenses in the existing owned building portfolio. GSA Link is a hardware and software solution to capture real-time building systems point data, apply rules-based analytics software to the data, and spot trends and deficiencies while reporting actionable events to building operators, O&M contractors, and GSA Service Center property managers.

C.2.11 Building Operating Plan

The "building operating plan" is a mandatory plan that the Contractor prepares for Government approval that describes the Contractor's program for operating and maintaining the building, to include both normal circumstances and contingencies.

C.2.12 Commissioning
A practice used to optimize and verify performance of fundamental building systems.

C.2.13 Ongoing Commissioning
The practice of optimizing system performance by continuing to fine-tune equipment so will result in actively preventing problems for the lifetime of the building. GSA's Ongoing Commissioning efforts will focus on maintaining the facility in the optimized state resulting from TBC and Re/Retro Commissioning efforts. GSA will achieve this through its relationship with its service providers (Operations and Maintenance/Custodial/Repair and Alterations/IT/Utilities) and the use of technology (networked systems/Advanced Meters/Smart Buildings).

C.2.14 Computerized Maintenance Management System (CMMS)
A "computerized maintenance management system" is a database and application software package that automates the O&M and repairs record keeping requirements. A CMMS is designed to enhance efficiency and effectiveness of maintenance activities. Typical features include planning, scheduling and monitoring of work orders and maintenance needs.

The National CMMS (N-CMMS) is a central repository (Database) for all maintainable GSA Assets. The N-CMMS provides a mandatory, Agency-Wide means and method for processing and reporting all maintenance work done for GSA regardless of Region or Contractor.

C.2.15 Consumable Parts
"Consumable parts" or components are parts or components that customarily require regular replacement rather than repair in a maintenance program and shall be disposed of properly. Examples include, but are not limited to: oil, grease, belts, filters, ballasts, lamps, etc.

The Contractor is responsible for any consumables ~~(including fuel)~~ used during day-to-day operation of a generator, i.e., exercising the generator, testing, etc. Operation of a generator for an extended period (more than 4 hours per event) or due to a power loss would be treated as a reimbursable expense. If the operation of the generator is caused by Contractor negligence, the Contractor shall be liable for the full cost of refueling, any other provisions notwithstanding. The contractor shall not allow the fuel level to drop below 75%. The contractor shall provide fuel up to $3,300 per contract year. The contractor shall submit a running log containing the amount of fuel used with associated costs the first Monday of each month to the COR. GSA will pay for all fuel after the $3,300 limit is reached each year the contract is in effect.

C.2.16 Contracting Officer (CO)
Contracting Officer (CO) has the overall responsibility for the administration of this contract. The CO alone, without delegation, is authorized to take actions on behalf of the Government to amend, modify or deviate from the contract terms, conditions, requirements, specifications, details and/or delivery schedules. However, the CO may delegate certain other responsibilities to authorized Government representatives.

C.2.17 Contracting Officer's Representative (COR) or Designee

Contracting Officer's Representatives (COR) or their designee shall be appointed by letter from the CO. CORs or designees will be the primary Government representatives for the administration of Contract, shall have proper training and experience in inspecting contracts, but will not have the authority to modify the contract.

C.2.18 Contractor

"Contractor" as used in this document refers to the company or firm awarded this contract.

C.2.19 Contractor's Other Than Normal Working/Duty Hours

Hours other than those identified as Normal Working Hours.

C.2.20 Controls and Control System

A "control system" is any low-voltage control, communication and monitoring system, including but not limited to stand alone devices, field and global controllers; instrumentation; networking infrastructure; computers and peripherals; software; programming; database files; and licenses. Examples are the BAS, Advance Metering System (AMS), and lighting control systems. Fire protection systems and security systems are excluded from this definition for purposes of this contract and are defined separately. Gateway devices and mapping software and files for data interchange between a control system and a fire protection or security system are considered part of the control system. Government-furnished Equipment (GFE) is any required computer or server hardware (i.e. PC, laptop) and peripherals (i.e. mouse, keyboard, monitor) and/or routing and switching equipment, used to provide GSA network connectivity, must be government-furnished and must be provided by the GSA.

C.2.21 Defective Service

A unit of service that does not conform with specified contract requirements.

C.2.22 Emergency

The term "Emergency" includes bombings, and bomb threats, civil disturbances, fires, explosions, electrical failure, loss of water pressure, building flooding, sanitary and sewer line stoppage, chemical and gas leaks, medical emergencies, hurricanes, tornadoes, floods, and earthquakes. The term does not apply to civil defense matters such as potential or actual enemy attacks.

C.2.23 Emergency Callback

An "emergency callback" is a service request or other request for service placed outside of normal working hours and of such a nature that response cannot wait for the resumption of the next day's normal working hours.

C.2.24 Environmentally Sustainable

Products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, products and chemicals, packaging, distribution, reuse, operation, maintenance, or disposal of the product or service. Attributes of environmentally sustainable products include those that are energy efficient, water-efficient, biodegradable, environmentally preferable, non-ozone depleting, contain recycle content, non or less toxic, EPA-designated and bio based.

C.2.25 Existing Deficiency List Report

The "existing deficiency list report" or "existing deficiency list" is a list of deficiencies that may exist in the equipment and systems covered by this performance work statement, as well as the Contractor's itemized price (including, but not limited to, labor, materials, overhead, and profit) for correcting each deficiency.

C.2.26 Exterior

This includes entrances; landings; steps; sidewalks; parking areas; arcades; courts; planters; lawns; irrigation systems; fountains; security bollards; gates; fences; flagpoles; building-mounted, pole, and ground lighting; etc. located adjacent to the facility extending to the legal property line.

C.2.27 Federal Holidays

"Federal holidays" for the purposes of this contract are New Year's Day, Martin Luther King Day, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. When Federal holidays fall on weekends, a weekday is typically designated as the holiday. Holidays that fall on Saturday are observed on the previous Friday and holidays that fall on a Sunday are observed on the following Monday. Veterans' Day is always on the 11th of November and Thanksgiving is always the 3rd Thursday of November.

C.2.28 Federal Executive Holidays, Unanticipated

Unanticipated holidays declared by the president will count as Federal holidays. As long as the Contractor pays employees as if it were an anticipated Federal holiday, the Contractor will be paid for the unanticipated holiday as if it were a normal Federal Holiday.

C.2.29 Fire Protection and Life Safety Systems

"Fire protection and life safety systems " are systems and equipment installed in the building to (1) detect fire and products of combustion, (2) notify building occupants and emergency responders, (3) initiate smoke control systems (4) initiate fire suppression systems, (5) control or suppress fires and (6) facilitate or enhance emergency egress. These systems also may communicate with other major building systems for fire and smoke control, elevator recall, and utilities control. Life safety systems and equipment includes emergency lighting, exit signage, special egress door locking arrangements, and exit stair markings.

C.2.30 Guiding Principles for Sustainable Existing Buildings

A practice of using processes that is environmentally responsible and resource-efficient throughout a building's life-cycle. The goal is to minimize and offset consumption of energy, water, and other resources and to eliminate all waste and pollution in building operations and activities. The result is to reduce the environmental impact of the Federal government, which will expand and complement the building design economy, utility, durability, and comfort. The common objective is to reduce the overall impact of the building environment on human health and the natural environment by:

a. Improving energy efficiency and reductions in greenhouse gas emissions.
b. Reducing water consumption intensity.
c. Acquiring green products and services.
d. Implementing pollution prevention measure, including reduction or elimination of the use of toxic and hazardous chemicals and materials.
e. Implementing cost-effective waste prevention and recycling programs.

f. Increasing diversion of solid waste.

C.2.31 GSA Green Purchasing Program (GPP)
The GPP specifies requirements to promote the purchase of environmentally sustainable products and services.

C.2.32 Indefinite Quantity
"Indefinite quantity" provisions permit the Government to order work, in addition to the basic services, and upon acceptance permit additional payment to the Contractor.

C.2.33 Maintenance Repair
Work required preventing a breakdown of a piece of equipment or system, or put equipment or systems back in service after a breakdown or failure.

C.2.34 Miscellaneous Work
"Miscellaneous work" is additional labor that is performed at the request of the agency at no additional cost to the Government (i.e., they are part of basic services). The Contractor may also have to provide consumable materials to complete the request. Miscellaneous work is treated as a Service Call and is included in the Basic Operations and Maintenance price quoted per month on the bid sheet. During normal duty hours minor tasks related to routine, day-to-day operational requirements requested by the which will consist of, but not be limited to: hanging pictures, maps and bulletin boards; trimming door bases; and other similar functions as directed. Miscellaneous work shall be accomplished in the same time frame as routine service calls unless otherwise directed by the CO or designee. The Contractor will be paid at the hourly rate quoted for after normal duty hours only if authorized by the CO or their designee in advance for specific activities.

C.2.35 Modification of Contract
Modification is a bilateral or unilateral change in the terms of a contract.

C.2.36 Negligence
"Negligence" is the failure to use due care under the circumstances. It is the doing of some act which a person of ordinary prudence would not have done under similar circumstances or failure to do what a person of ordinary prudence would have done under similar circumstances.

C.2.37 Non-Reimbursable Repair
A "non-reimbursable repair" is a repair that is the Contractor's responsibility with no additional reimbursement from the Government.

C.2.38 Normal Working Hours
"Normal working hours" is the hours of building operations under most circumstances when all services shall be provided to all occupants.

C.2.39 Occupant Emergency Plan (OEP)
The lead agency in each building is responsible for development and enforcement of the building's "Occupant Emergency Plan" (OEP). The OEP details what the building tenants shall do in case of an emergency. The plan identifies floor wardens, shelter in place locations etc.

C.2.40 Open Systems

An "open systems" solution is based on industry standard open protocols. This environment and solution is typically designed, procured, installed and maintained in a manner that provides the building owner with as many competitive configuration options as possible while maintaining the integrity of the supported manufacture system. The solution must be procured and installed so that the result delivers device level interoperability amongst different manufactures residing on a common network. In addition, the solution must be maintained with no future need for the original (installing) contractor. Additions, modifications, and retrofits can easily, without significant additional cost, be made to the system without dependence on the original installing contractor nor require substantial engineering or other technical development. Contractors shall specify Open Systems solutions where feasible and reasonably possible.

C.2.41 Operations

"Operations" is the continual process of using building equipment systems to accomplish their function, optimize building performance, and improve energy efficiency. Operations includes analysis of requirements and systems capabilities, operating controls and control systems, responding to service requests, touring and observing equipment performance and condition, adjusting equipment, identifying needed maintenance and repairs to equipment, and maintaining lubrication and chemical treatments, etc.

C.2.42 Performance Based Service Contracting

The procurement strategy that seeks to issue technical requirements that set forth outcomes for performance instead of specific requirements on how to perform the service. This strategy shifts the risk of performance to the Contractor by allowing the Contractor to design the methods of achieving desired results as defined by the performance quality standards established by the Government.

C.2.43 Performance Work Statement (PWS)

The Performance Work Statement details the work requirement and can be referred to as the specification.

C.2.44 Predictive Maintenance

"Predictive maintenance" is a program of maintenance activities in which scheduling of maintenance derives from monitoring the operating condition, or changes in the operating condition, of equipment being maintained.

C.2.45 Preventive Maintenance (Scheduled and Unscheduled)

"Scheduled preventive maintenance" is a program of maintenance activities performed based on a fixed schedule or on equipment runtimes. "Unscheduled preventive maintenance" is all work performed including adjustments and procedures necessary to sustain the proper operation of all building equipment and systems pending a scheduled procedure.

C.2.46 Product Preference (See Exhibit 4 Summary of Environmentally Sustainable Product Attributes)

Use of "environmentally sustainable" products is mandatory for performance of this contract. As such, products identified as "environmentally sustainable" will be selected over those which do not carry such designations. The following factors should be considered when selecting products: environmental performance, cost performance, bio-based, recycled content, biodegradability, technical performance, and availability.

C.2.47 Quality Assurance Surveillance Plan (QASP)
The QASP is the Government's surveillance method of monitoring and evaluating the Contractor's performance under a Performance Based Statement of Work (PBSOW).

C.2.48 Quality Control Plan
The "quality control plan" (QCP), is the Contractor's complete written system for identifying and correcting deficiencies in the quality of services before the level of performance becomes unacceptable. Preparation of this document is the responsibility of the Contractor.

C.2.49 Repair
A "repair" is an act of restoring inoperable, dysfunctional or deteriorated equipment, systems, or material to a fully functional, non-deteriorated state. Repairs usually involve some combination of labor and replacement parts, components or materials.

C.2.50 Reimbursable Repair
A "reimbursable repair" is a repair that is reimbursable to the Contractor, in whole or in part, in accordance with the provisions in this document.

C.2.51 Sequence of Operations
A "sequence of operations" is the control logic used to operate a system normally put into effect through a control program.

C.2.52 Service Request
A "service request" is a response to a GSA, tenant, or agency request or a response to an observation that some equipment, system or material covered by the contract is inoperable, dysfunctional, deteriorated, or not within normal operating parameters, or that performance standard of the contract is not being met. Service request response involves analysis of the problem and adjustment of operating or monitoring controls or other immediate corrective action. A requirement to perform a repair may result from the analysis stage of a service request. Service requests may be generated automatically from interfaces to BAS or diagnostic software.

C.2.53 Standard Services
Standard services are defined as all services that are included in the monthly price or as defined in the Contract document. Prices are to include all applicable labor, materials, supplies, training/certifications, equipment (except as otherwise provided), supervision, and management.

C.2.54 Stewardship
The act of stewardship is to take the responsibility for managing, conducting or supervising the quality, state or condition of a commercial building. A Stewardship program in addition to caring for the building, its occupants and visitors includes among other things a sense of shared responsibility, occupant participation and communications amongst building management, O&M personnel, cleaning personnel, occupants, contractors and others who have an impact on/in the building.

C.2.55 Supervisor, On-site
The term "on-site supervisor" means a person designated in writing by the Contractor who has authority to act for the contract on a day-to-day basis at the work site.

C.2.56 Tour

A “tour” is generally a scheduled walkthrough of equipment rooms and installations including computer rooms, restrooms, etc. by Contractor operating personnel for the purpose of ensuring that equipment is running properly, ensuring that equipment rooms are in good order and without safety hazards, and making any necessary adjustments to operating controls or to lubricate equipment. A tour may also involve a combination of such physical visits in addition to using automated systems for the monitoring of equipment and systems. Equipment log sheets are a part of the tour plan/program. All tours are "inspection" work orders in the CMMS and will comply with all work order requirements,

C.2.57 Vertical Transportation Systems
“Vertical transportation systems” include elevators, escalators, dumbwaiters, lifts, etc.

C.2.58 Watch
A “watch” involves performing certain tasks required for the operation of the HVAC equipment (central systems over 300 tons), boilers, compressors, and related equipment in a centralized location. Watches include, but are not limited to starting equipment, checking at designated intervals all operating equipment in the area, recording readings, shifting equipment and loads, making adjustments at the central control center, taking water samples, making tests, and adding chemicals as required.

C.3 References (Contained in a separate reference document)

C.4 Existing Deficiency/Contract Closeout
The existing deficiency and contract closeout inspection and list is meant to identify and document all deficiencies that exist in the equipment and systems covered by this performance work statement.

C.4.1 Existing Deficiency Inspection and Closeout Inspection
The outgoing Contractor, incoming Contractor, and the CO or their designee shall make a complete and systematic initial inspection together during the startup or transition phase of the contract. The purpose of this inspection shall be to discover and list in an existing deficiency/contract closeout list all deficiencies that may exist in the equipment and systems covered by this performance work statement, as well as the incoming Contractor's itemized price (including, but not limited to labor, materials, overhead, and profit) for correcting each deficiency. The Government may elect to have all or any part of this work performed by the outgoing contractor (at no additional cost) prior to contract expiration or the incoming Contractor (at the price or prices quoted), by Government employees, or by other Contractors.

C.4.2 Existing Deficiency List and Contract Closeout List:
Contract Closeout deficiency items that can be corrected by service call, preventive or predictive maintenance or repairs below the repair threshold will be corrected by the outgoing contractor prior to expiration of the contract. Any contract closeout deficient items not completed prior to contract expiration will result in the withholding of monies from the final payment. The existing deficiency list and contract closeout list shall be submitted to the CO or designee not later than 7 calendar days after completion of the inspection. Any dispute between the Government and the Contractor as to classification of initial deficiency list items will be resolved under the Disputes

Clause in this document. The incoming Contractor's itemized estimates for correcting each deficiency shall be submitted to the CO or designee not later than 30 days after submission of the list and these estimates shall remain in effect for a minimum of 180 days. Deficiencies discovered after the submission of the existing deficiency/contract closeout list will not be considered pre-existing for purposes of this Contract, unless equipment is operational and cannot be secured and inspected. Any piece of equipment or system that cannot be inspected shall be highlighted at the beginning of the existing deficiency list stating why it cannot be secured and inspected. An estimate of when the Contractor reasonably expects to be able to inspect the piece of equipment shall be provided. When an existing deficiency is corrected, the Contractor shall assume full responsibility for the subsequent repair of the item as covered under the terms of this Contract. Nothing in the existing deficiency list shall be construed as diminishing the obligations imposed by this Contract upon the Contractor to operate any deficient item (to the extent operable) or to adjust or maintain any such item. Items that may be replaced, repaired, or adjusted during the performance of normal preventive or predictive maintenance or service call will not be identified on this list.

C.5. Startup Phase/Transition Phase

C.5.1 Transition Phase Startup

The Contractor shall provide 60 days of transition startup services, prior to the Contract start date, to assist transitioning between Contractors**.** The purpose of this phase is to permit a transition that is seamless to the tenants and to assess the condition of the building and incomplete maintenance work at the time of Contractor transition. During this period the Contractor shall:

a. Review and update existing BOP with the CO or their designee by the end of the startup phase.
b. Inspect the condition of all equipment and systems for which the Contractor will assume responsibility.
c. Review work order history and equipment inventory information.
d. Complete the government-furnished CMMS training.
e. Update the preventive maintenance schedule, if needed. The new periodic maintenance schedule shall be based off of the last time PMs were performed.
f. Develop and submit to the CO or their designee 30 days before the end of the startup phase the initial deficiency/closeout list report, including an itemized estimate for correcting each deficiency as described in Section C.4., Existing Deficiency Inspection /Initial Deficiency List. The Government may use this list and any other lists developed by the Government and/or a third party contractor's list hired by the Government, which will make up the final deficiency/closeout list.
g. RESERVED
~~h. Complete the Annual Energy and Water Efficiency Report.~~

C.5.2 RESERVED

C.5.3 Adjustments and Corrections The Contractor shall be responsible for making immediate adjustments or corrections that fall within the scope of routine preventive maintenance required by this Contract at no additional cost to the Government. This includes, but is not limited to: making adjustments to controls; adjusting the BAS software, e.g., correcting set points; reloading programs; restoring equipment being operated manually to automatic operation (this does not include changing established sequences of operation or programming sequences); applying lubricants; cleaning fan housings, fans, coils, dampers, air handling unit (AHU) Sections, and

equipment rooms; and replacing consumable parts or components. The Contractor shall identify for the Government all alarm points with originating point identification information (device ID, point number, description), so that the Government, at its discretion, may arrange for automatic generation of work orders from alarm conditions.

C.6. Phase-out Transition Period

When the Contract ends, the Contractor shall cooperate with the incoming Contractor during a phase-out period. For planning purposes, the Contractor shall assume a phase-out period of **30-60** days.

During this phase-out period, the Contractor shall:

a. Assist the CO or their designee and incoming Contractor for a seamless transition in operations and maintenance with no adverse effect on the building tenants;
b. Provide GSA and the successor Contractor with access to all records and official documentation (both hard copies and electronic as applicable) required by this Contract;
c. Provide training to the successor Contractor on methods of accessing and programming the building automation system (BAS) and other control systems; and
d. Show the successor Contractor where all archived programs and systems literature are maintained. On the last performance day of the Contract, the Contractor shall turn over to the CO or their designee all keys and identification badges or cards.
e. Coordinate and complete disposal, cleanup, and transfer of all materials according to applicable laws.
f. Provide all data records (database files, spreadsheets, etc.) relating to building systems, assets, work orders, permits, work activities, etc. to GSA. GSA owns all data compiled under this Contract or ancillary to this Contract.

C.7. Deficiency/contract close out List Completion and Withholding of Final Payment

The Government may create a deficiency/close out list of unmet Contractual requirements at or near the time of termination of the Contract. The Government may employ the services of another Contractor in the development of the list and upon completion provide the Contractor with a copy of work not completed, to include the monetary value the Government has assigned for each item. The Government retains sole discretion over whether to charge the Contractor for the monetary value of the list in whole or in part or to request corrections by the Contractor. If the Government elects to request corrections by the Contractor, the Contractor shall have until the end of the Contract period to perform such corrections and may invoice for funds withheld on acceptance of the corrections by the Government. Nothing in this Section shall be construed to limit the Contractor's liability or restrict the Government from reporting unsatisfactory or problematic performance by the Contactor.

C.8. General and Administrative Requirements

C.8.1 **Minimum staffing and ability to contact and communicate with the CO or designee**

The Contractor shall:

Provide qualified staff and onsite technicians to ensure services are continued without disruption to the tenant. The Contractor must be able to respond immediately to a variety of service requests involving multiple trades, including the operation of building control and energy management systems. Technicians shall be certified and properly licensed to work on buildings systems,

where applicable, in accordance with Federal, State, or Local laws, codes, or ordinances. See paragraph H.15 Personnel Qualifications for additional information.

(1) Project Manager - The project manager is a person, designated in writing by the Contractor, who has complete authority to act for the Contractor in every detail during the term of the Contract. The Project Manager shall have the authority to accept notices of deductions, inspection reports and all other correspondence on behalf of the Contractor. The Project Manager's physical location and availability shall be approved by the CO or designee.

(2) Onsite Supervisor - The onsite supervisor is a person, designated in writing by the Contractor, who has complete authority to act for the Contractor on a day-to-day basis at the work site. The onsite supervisor shall have the authority to direct the workforce and the work to be accomplished under this Contract on behalf of the Contractor. The onsite supervisor's physical location shall be at the work site. When multiple shifts are required, the Contractor shall designate a minimum of one onsite supervisor for each shift. These individuals may be classed as working supervisor if so desired by the Contractor and may perform the functions of mechanic and supervisor concurrently.

Maintain communication with the Government during normal duty hours and after hours for emergencies. (See Section C.8.2, Communication Equipment).

a. Immediately notify the CO or their designee of any recognized safety hazard that might severely affect the building occupants.
b. Develop and submit to the CO or their designee within 21 calendar days of Contract award a list of key personnel and emergency contact information (which may include subcontractor contacts, as applicable).
c. Shall have all Contract employees, including subcontractor employees, sign in and out, upon entering or exiting the building using a log established at each building for security and Contract administration purposes.

C.8.2 Communication Equipment

The Contractor shall provide key operational personnel (managers, supervisors, and duty mechanics) with portable electronic means to communicate with GSA for service requests, emergencies, status of projects, etc. Electronic communication methods may include the following:

a. Phone/Emails/Text messaging devices. The Contractor is responsible for all costs associated with the text messaging device. Examples are two-way pagers, cell phones with text messaging, BlackBerry, etc.
b. Fax. Receiving and sending faxes is acceptable as a secondary communication method for locations that have problems with wireless device signal strength. However, delaying faxes because of combined usage of voice and fax on the same line is not acceptable.

C.8.3 Onsite Records

The Contractor shall ensure that all records required by the Contract, or produced in performance of work under the Contract, are maintained in an organized manner onsite in electronic format and are made available to the Government when requested. The Contractor shall receive, maintain and gather data, as well as other materials including records and manuals, related to the support and operation of Government facilities. The Government retains ownership of all databases, information, and other materials received or developed by the Contractor in support of this Contract at all times.

C.8.4 Service Request and Administrative Support

The Contractor shall operate a service request and administrative support function during normal working hours, to act as a central point of contact for the Government and building occupants to take service requests, and track and maintain service request records in the CMMS. This includes service requests for work not under the scope of this Contract (i.e., performing a central service request desk function for the facility, regardless of who is responsible for responding to the service request).

C.8.5 Use of CMMS

GSA's goal is to use government-furnished CMMS systems in all locations as practicable. The Contractor shall use the Government-furnished CMMS to include validating and updating the equipment inventory database, including all data fields specified by the CO or designee. The Contractor shall attend the CMMS training provided by the government. Where not previously established, the Contractor shall construct the inventory database. The Contractor shall use the CMMS to identify, control, track, and schedule preventive maintenance work, service requests, and equipment inventory. The Contractor shall track historical maintenance and repair activities for each work order received during the performance of the Contract. All work done by the Contractor shall be accomplished under a CMMS work order. The Contractor shall provide reports to the CO or designee as requested and in a format and media as requested.

C.8.6 Quality Control Program

A Quality Control Plan (QCP) shall be developed and submitted for approval to the CO or their designee prior to issuance of the Notice to Proceed. Upon approval, the Contractor shall implement the QCP to ensure Contract compliance, and to ensure that potential problems with building equipment and systems are identified, documented in a CMMS if applicable, and resolved prior to failure. The system of checklists, inspection methodology, and frequencies shall be documented by the Contractor. The Contractor shall maintain a Local file of all quality control inspections conducted by the Contractor, including the corrective actions taken. All documentation shall be made available to the Government upon request during the term of the Contract.

C.8.7 Government Quality Assurance Surveillance Program

The Government may inspect the Contractor using a quality assurance program through random inspections, scheduled inspections, or any other method of inspection that the Government determines reflects the actual successful performance of this Contract. As part of the Government's quality assurance program, the Government may:

a. Review and, if warranted, reject any reports or other submittals required from the Contractor.
b. Review performance and service records, including, if applicable, but not limited to, BAS data, CMMS data, Advance Metering System, (AMS) data and any computerized or hardcopy records maintained by the Contractor documenting performance under this Contract, and require correction of any unsatisfactory conditions noted.
c. Determine the adequacy of the Contractor's quality control program and documentation and the overall success of this program. The Government may order improvements if it determines the programs are insufficient or ineffective.
d. Obtain tenant satisfaction survey information and require improvements in service on the basis of such information to the extent such results correlate with deficiencies in Contract requirements.

e. Conduct random and routine physical inspections of facility equipment and systems, to include programs and files maintained on computers and Contractor onsite offices and work areas, and require correction of deficiencies noted.
f. Perform inspections with Government personnel or independent third party inspectors.

C.8.7.1 Contract Performance

Contractor performance will be evaluated on the basis of the performance success or deficiencies, success or failure in meeting other Contract requirements, and the Contractor's record of correcting deficiencies when noted. While corrective actions will be noted, a record of significant performance deficiencies may lead to a performance evaluation that is less than satisfactory even if the Contractor takes corrective action.

C.8.7.2 Methods

The use or nonuse of any quality assurance methods (e.g., a measurement and verification (M&V) program) by the Government will not constitute a waiver of or excuse from Contract requirements. The Government may implement or change quality assurance measures at any time during the term of the Contract.

C.8.7.3 Records and Files

All records and files that this Contract requires the Contractor to maintain shall be made readily accessible to Government representatives, including third party Contract inspectors, on request. All records and files utilized or generated during the course of the Contract by the Contractor, including all standard operating procedures and building operating plans, shall become the property of the Government (this excludes employee personnel files and company financial information).

C.8.7.4 Cooperation – Inspections

The Contractor shall instruct all onsite personnel to cooperate with the Government or third party Contract inspector requests for records access and information. This includes answering honestly and comprehensively all questions related to performance of work. The Contractor shall provide personnel to enable inspectors, including third party Contract inspectors, to perform inspections of equipment. The Contractor shall notify the CO or their designee at least 2 weeks in advance when equipment is to be opened and available for inspection by the Government. The Contractor shall open and operate the equipment for observation by all inspectors at no additional cost to the Government provided the Government requests the service at least 48 hours in advance. Most inspections will be performed during normal working hours. However, the Contractor shall provide personnel to enable access for inspectors who need to conduct observation and testing after normal hours to avoid possible disruption to tenants.

C.8.7.5 Contractor Performance Systems (CPARS)

GSA uses the CPARS or similar performance measuring system to formally evaluate the Contractors performance. Evaluations are generally conducted annually or more frequently on or about the anniversary date of the Contract and also at the end of the Contract period.

C.9. Building Operating Plan

C.9.1 Purpose of Building Operating Plan (For additional info refer to References)

The building operating plan may be based on, or derived from, the existing building operating plan and other existing documents. However, all components shall be reviewed and updated. Deficiencies in the existing plan do not excuse deficiencies in the new plan. GSA will provide template and Contractor will meet within 60 days after contract start date with GSA Property Management staff to fill out. GSA will maintain this plan; however it's a shared responsibility to keep it updated. If contractor knows of a change that's needed, the contractor will notify GSA Property Management Staff to have them update. A copy will be kept with GSA and a copy in the Contractors onsite office.

C.9.2 Components of the Building Operating Plan (BOP) (Refer to references doc)

C.10. Equipment Inventory
The Contractor shall:

a. Maintain and update the building equipment inventory and equipment labeling.
b. Maintain equipment inventory and maintenance records in a CMMS.
c. Maintain the same asset identification system currently used for new and replacement equipment unless a national asset identification standard is provided. Some asset identification systems include bar-coding, Radio Frequency identification (RFID), or other equipment tagging.
d. Collect and maintain an inventory of: (1) all equipment of types that require maintenance or certifications pursuant to the PBS Maintenance Standards or applicable code requirements, (2) equipment which is operated through a sequence of operations, (3) electronic controllers and network devices, (4) sensors, (5) Agency owned sensors , if applicable.
e. Collect and maintain the following equipment data: Equipment ID, Equipment Type, Equipment Description, Asset Identification Code, Manufacturer, Model Number, Serial Number, Equipment Status, Building Number, and Location (Exhibit J. 15).
    1) The Contractor shall provide all data to GSA in a format approved by the CO or designee with certification that the inventory is complete and accurate. For facilities where the GSA provides a CMMS, the government-provided CMMS is the required format for providing inventory data.
    2) The Contractor shall annually certify that the Maintained Building Equipment Inventory is up-to-date and submit the certified inventory to the CO or designee.
    3) The Contractor shall update equipment data when equipment is added, removed, or retrofitted as part of a project, or discovered by GSA or the Contractor.
    4) The Contractor shall review and update equipment records including asset information, maintenance records and preventive maintenance records any time maintenance is performed on a piece of equipment.
    5) The Contractor shall report to the CO or their designee changes to the asset inventory and preventative maintenance schedule within five working days of collecting and gathering equipment information.

Omissions on existing inventory do not relieve the Contractor from the responsibility for the maintenance of the equipment. If the inventory data does not meet Contract requirements, action to withhold payments will take place. The Contractor may request equitable adjustment pertaining to physical changes in building equipment and submit to the CO or designee for consideration.

C.11. Weekly Progress Meetings These type items will be discussed at the weekly performance meeting held with Property Management Office, CO, or designee.

The Contractor shall develop a monthly progress report using CMMS data, describing the status of maintenance and operations as of the last day of the performance month. The report shall be submitted to the COR by the 5th working day of the subsequent month. This report shall include: Work Order status of all types of maintenance, repairs, service calls (highlight overdue and tenant complaints), to include deferred, completed, and active (include estimated completion date), by type of work i.e., reimbursable, repair, and work orders resulting from testing and inspections, and any equipment out of service.

a. Explanation of any equipment, designed to be controlled by the BAS, operating in manual mode as of the end of the performance month, and of any other overrides to sequences of operations in effect as of the end of the performance month.
b. Operating schedule changes (manual or programmed)

Description of any lost time accidents or other safety problems, including incidents involving hazardous materials that occurred during the performance month

c. Copies of quality control inspections performed during the month attached to the report.
d. Building Management Support Services (utility hours/miscellaneous work) provided during the month.
e. Copy of arrival and departure reports
f. Monthly water treatment test results
g. Recalibration documentation of advanced metering equipment.
h. When testing is performed, the Contractor shall submit results with the next monthly progress report
i. Refrigerant control logs shall be updated as required, and a copy sent with the monthly report.
j. The Contractor shall record the fuel levels monthly and report findings in the Monthly Progress Report
k. Review of energy performance trends as of the end of the performance month and description of likely causes of significant changes from the same month 1 year prior.
l. Check and record diesel fuel levels

C.12. Performance Review Meetings

The Contractor shall meet with the CO or their designee and other Government representatives, at the discretion of the CO or designee, to review Contract performance.

C.13. Equipment Condition Assessment

During the performance of the requirements of this Contract the Contractor shall note the condition and efficiency of building equipment and systems on an ongoing basis in the CMMS. Any equipment or systems that the Contractor determines are reaching the end of their life cycle shall be brought to the attention of the CO or their designee. When requested, the Contractor shall complete and submit to the CO or their designee an itemized equipment condition assessment with their recommendation for equipment or system upgrades or replacements (that has reached end of their life cycle), including a text description of each recommended upgrade or replacement and their life cycle cost analysis that shall include estimated project cost. The equipment

condition assessment reports shall be produced in Word, Excel, or PDF format and submitted electronically as an email attachment to the CO or their designee.

Major Equipment and Critical System Breakdowns
The Contractor shall report to the COR the status of any major equipment or systems not operating, or that become non-operational during the workday, within 30 minutes of discovery. The Contractor shall, on a daily basis, report the status of any system or equipment, including elevators, not operational by the official start time of the building occupants to the COR by 8:00 AM, with a written report to follow as directed by the COR.

Security and fire alarm system malfunctions must be reported immediately to the COR.

The Contractor or his/her on-site representative shall immediately notify the COR or his/her designee if a building system fails, and the Contractor's personnel cannot correct the problem. If the failure occurs *outside of ħormal working hours,"* ***the Contractor or his/her on-site representative shall immediately contact the appropriate GSA personnel in accordance with instructions and telephone numbers furnished by the COR. If the failure involves fire alarm, fire system monitoring, fire detection, or fire suppression systems/equipment,*** *THE CONTRACTOR SHALL TAKE IMMEDIATE STEPS TO INSTALL PERSONNEL, AS MAY BE NECESSARY, TO CONDUCT AN APPROPRIATE FIRE WATCH* ***until the emergency condition can be resolved in accordance with the requirements of this Exhibit***

C.14. Occupant Feedback Program
The Contractor shall institute an occupant feedback program as a means of assisting in documenting certain kinds of service problems. The tenants will contact the on-site supervisor regarding any feedback. If the problems are not resolved within two (2) days of initial contact, the tenant will contact the Contracting Officer's Representative.

A feedback log will be maintained by the Contractor for review at any time by the Contracting Officer's Representative. This occupant feedback log will be used to evaluate the Contractor's performance.

In the event a tenant requests work not covered by the contract, the Contractor shall refer the tenant to the Contracting Officer's Representative.

C.15. Reference Library
The Contractor shall maintain a comprehensive reference library that includes building design or record documents, renovation or equipment retrofit design or record documents, maintenance reference documents, applicable NFPA codes and standards, fire protection system as-built drawings, fire protection system operations and maintenance manuals with copies of approved submittals, fire protection system parts list, fire protection system zoning scheme, fire protection system sequence of operation matrix, HVAC Operations Manual (if one has been developed), building operating plan, energy and other building technical studies, hazardous materials surveys, and other documents necessary to document the design, function, and condition of the building. The Contractor shall safeguard this information in accordance with the provisions of Section H.6., Sensitive but Unclassified Building Information (SBU).

C.16. Review of Design Documents

Utilizing the most qualified onsite personnel familiar with the operations of the facilities covered under the scope of this Contract, the Contractor shall review design and construction project documents as requested by the CO or designee. The purpose of this review is to allow the Contractor to comment on any negative impact the proposed project may have on their ability to efficiently operate the building equipment or systems. When requested to perform these services, the Contractor will be compensated for the actual time required spent. The Contractor should also be allowed to provide input or propose ideas that may improve the operations and provide value engineering.

C.17. Building Management Support Services

The Contractor shall provide reasonable and competent assistance during normal working hours to GSA personnel or other GSA Contractors performing energy studies, engineering studies, building condition evaluations, fire protection facility surveys, project designs within the building, and other access needs at no additional cost to the Government. Such assistance shall include escorting investigatory personnel through spaces in the building in accordance with building security requirements, explaining the operation and condition of equipment and systems to investigatory personnel, and providing access to trend data, maintenance records, reference library materials, and other pertinent building technical data to investigatory personnel. The CO or their designee shall inform the Contractor as far in advance as possible of the actual date and time these services are needed. The contractor shall not be compensated for escorting their own personnel or subcontractors. When requested to perform these services after normal working hours the Contractor will be compensated for the actual time required to escort the GSA personnel or Contractor at the following hourly rate:

INITIAL:	$40.69 PER PRODUCTIVE HOUR
OPTION I:	$41.92 PER PRODUCTIVE HOUR
OPTION II:	$43.17 PER PRODUCTIVE HOUR
OPTION III:	$44.47 PER PRODUCTIVE HOUR
OPTION IV	$45.80 PER PRODUCTIVE HOUR
OPTION V	$47.18 PER PRODUCTIVE HOUR
OPTION VI	$48.59 PER PRODUCTIVE HOUR
OPTION VII	$50.05 PER PRODUCTIVE HOUR
OPTION VIII	$51.55 PER PRODUCTIVE HOUR
OPTION IX	$53.10 PER PRODUCTIVE HOUR

C.18. Inspection Assistance for Space Build Outs

When tenant improvement or space alteration work is completed in the building, the CO or their designee may request that the Contractor inspect the space to verify that all offices have appropriately zoned air supply and return ductwork and diffusers, appropriately zoned lighting circuits, and all zone HVAC/lighting controls have been adjusted appropriately and labeling of breakers in electrical panels and outlet cover circuit designations are complete. Obvious problems or conditions that may potentially affect the efficient operation of the building or create a negative impact on the tenant shall be immediately reported to the CO or their designee.

C.19. Emergency Shutdown Instructions and Tour Checklists (Reserved)

C.20. Labeling of Electrical Circuits

The labeling of the electrical circuits shall be maintained up to date. When another Contractor (not the O&M Contractor) adds or modifies electric circuits the O&M Contractor shall inform the CO or their designee the compliance of annotating the changes to the panel and the update to the single line diagrams using the original electronic file format.

C.21. Operational Requirements

C.21.1 General

The Contractor shall provide building operations services for all systems covered by this Contract, so as to maintain uninterrupted utilities services, and environmental conditioning to tenants during normal working hours, and at other times as described in this document, so as to preserve the asset value of the facility and its systems and to otherwise minimize operating costs to the Government without compromising other Contract objectives or requirements. The Contractor shall be briefed by the property manager on GSA's policy regarding overtime utilities to better understand what is considered standard and above standard services.

C.21.2 RESERVED

C.21.3 Continuity of Operations (COOP)

The Contractor shall operate the facility and participate in emergency operations in support Occupant Emergency Plan (OEP) as specified in Section H.21.

C.21.4 Emergency Operations Plan

The Contractor shall be responsible for developing an emergency operations plan within the building operating plan and shall become thoroughly familiar with the Government's occupant emergency plan and other regional plans as applicable. The Contractor's plan shall include the following information: position and contact phone number of each Contractor person, what each position is responsible for in each emergency, general administrative support the Contractor will provide during emergencies and any subcontractor support and contact information.

C.21.5 Tenant Environment

Lighting levels shall be adjusted under the guidance of the CO or their designee where they can be adjusted without changing fixtures (e.g., tuning dimmable ballasts, de-lamping). The Contractor should note that while the PBS P100 establishes target lighting levels, light quality, specific tenant requirements, energy conservation, and other individual factors also have an impact on requirements. In compliance with the FMR sections; 1002-74.185 and 102-74.195, respectively the contractor shall meet ASHRAE Standard 55-2004, Thermal Environmental Conditions for Human Occupancy and ASHRAE 62.1-2007, Ventilation for Acceptable Indoor Air. The Contractor shall maintain these standards throughout the normal working hours. Equipment start up shall occur efficiently in order to fully attain environmental conditions at the beginning of normal working hours. The contractor shall comply with the ASHREA Standard 55 – 2004 to achieve temperature settings between 74°F and 78°F in the summer months and between 68°F and 72°F in the winter months. These recommended temperature settings apply to

the entire building not individual offices. The Contractor shall report significant changes in the operating conditions to the CO or their designee. If the standards (ASHRAE Standards 55 and 62) cannot be achieve the Contractor shall submit a written deviation to the CO or their designee for approval.

C.21.6 Energy and Water Efficiency (Reserved)

~~The Contractor shall operate equipment and systems as efficiently as possible without compromising service to the tenants. Failure to operate equipment prudently (e.g., unnecessarily setting demand peaks, simultaneously heating and cooling, operating equipment when not needed, overriding set point unnecessarily, or failing to correct underlying conditions) may result in deductions. The CO or their designee will provide the Contractor with Operational Performance Targets (See Exhibit 10) for energy and water, where data is available within the first quarter of the award of the Contract. The Contractor shall populate **the Building Energy and Water Efficiency Use Plan Exhibit 11 or Annual Building Energy and Water Efficiency Report Exhibit 13** provided by CO or their designee to achieve the yearly energy and water targets. The plan shall identify measures to conserve energy, any operational or physical changes to the system, plant, or equipment, and optimization opportunities to reduce consumption or cost. The Contractor shall report monthly and annually (Exhibit 12&13) energy and water usage as compared to the previous year and document energy and water saving initiatives and reasons why performance goals were or were not met. The report shall be submitted to the CO or their designee by the 5th working day of the subsequent month. The Contractor is to make full use of available analytic tools (e.g., BAS, AMS, GSA Link data) to diagnose problems and identify operational improvements. The Contractor, in coordination with the CO or designee, shall pursue the use of energy-efficient replacement parts and equipment items (not limited to Energy Star ® or FEMP-designated Energy Efficient products, Water Sense, Design for the Environment products) that will meet or exceed the requirements of this statement of work. In cases where equipment is being replaced or upgraded to high efficiency models the Contractor shall investigate all potential energy rebates that would be advantageous to the government. Any rebates received from a service utility provider shall be assigned to the Government.~~

C.22. System Performance Standards or Procedures

C.22.1 Control Systems

The Contractor shall maintain control systems and sequences that emphasize efficient operations. Region 7 GSA considers the control systems Operator to be the most important position in the contract since they are operating the most important system we own. It is important to have qualified staff operate the systems. All efficient operations are dependent on and can only happen through a competent Operator and a well maintained system.

The BAS is accessed through the Tridium Niagra control system. It is important that the Contractor's operator is familiar with this system as well. While GSA will maintain the software, firmware updates, and the licenses for the Tridium Niagra system, it is the contractor's responsibility to operate, maintain and repair it. R7 GSA cannot stress enough the importance of these control systems, and the qualifications of the Operator. A large amount of success with this contract hinges on these two items.

C.22.2 Smart Buildings

The Government is taking proactive steps to converge a building's monitoring and control systems on common GSA-supported network infrastructure to enable access to real-time controls

systems performance data (i.e. data points). If the facilities' building systems network was installed and maintained by GSA CIO, then this building has Government-furnished (GFE) network equipment and Smart Technologies deployed. This also means that the Contractor will potentially need to coordinate troubleshooting and support with building system Contractors (HVAC, Lighting, etc.) and GSA CIO to help identify and resolve issues.

Integrated Building Systems

Assist the Government by ensuring that all relevant equipment vendors, with equipment installed in facility, maintain their respective systems (i.e. HVAC, BAS, Lighting, Advanced Metering, etc.) in accordance with GSA Smart and Sustainable Buildings intended objectives (i.e. open systems running on a single GSA Building Systems data network)

The Contractor shall act as a liaison and facilitate efforts between their respective building-specific monitoring and control system subcontractors and work through the CO or their designee GSA with the Information Technology Office (PBS CIO) on issues related to O&M operations.

The Contractor shall make recommendations to the government (as applicable), on improvements to sequences of operations. Communications for alarms set up for remote notification shall be tested on a recurring basis.

The contractor shall be responsible for keeping manufacturer and/or O&M building system software (BAS, BMS software) functioning. This includes, but is not limited to, updating and/or re-installing manufacturer's building system software on GFE computers and manufacturer's building system controllers as necessary to keep current with manufacturer recommended release levels and to keep in compliance with all applicable GSA IT support policies and procedures

C.23. Service Requests

C.23.1 General

The Contractor shall respond to service requests and initiate corrective actions and identify any repair requirements during normal working hours. The Contractor shall respond to emergency service requests (during normal working hours) and callback (after hours) work requests at all times. The Government (or, where applicable, the tenant Agency) may transmit work orders to the Contractor for service request or emergency service request and callback orally, by email, by creation of a work order by a Government employee or representative, or by generating an automated work order. The Contractor shall respond according to specified service response times.

C.23.2 Emergency Service Request

Emergency service requests are service requests where the work consists of correcting failures that constitute an immediate danger to personnel or property, including but not limited to: broken water pipes, stalled elevators with trapped passengers electrical power outages, electrical problems that may cause fire or shock, gas or oil leaks, major air conditioning or heating problems, etc., or any work considered by the CO or their designee to be of an emergency nature. The Contractor shall respond to emergency service request immediately (within the shortest possible time consistent with the mechanic's location) during normal working hours. The

Contractor shall remain on the job until the emergency situation has been secured and adequate temporary repairs have been made. Permanent repair shall be governed by the repairs provisions in this document.

C.23.3 Emergency Call Back (after hours)

Emergency call back requests are service requests where the work consists of correcting failures that constitute an immediate danger to personnel or property, including, but not limited to: broken water pipes, stalled elevators with trapped passengers**,** electrical power outages, electrical problems that may cause fire or shock, gas or oil leaks, major air conditioning , heating problems or fire alarm malfunctions, fire watches, etc., or any work considered by the CO or their designee to be of an emergency nature. The Contractor shall respond to emergency call back service request immediately (within the shortest possible time consistent with the mechanic's location) after working hours within 1 hour. The Contractor shall remain on the job until the emergency situation has been secured and adequate temporary repairs have been made. Permanent repair shall be governed by the repairs provisions in this document. The Contractor shall provide a written accounting of any emergency call back, to include costs incurred and plan for permanent correction of the problem, to the CO or their designee the morning of the next working day. If the emergency call back is expected to take more than 2 hours to resolve the Contractor must get approval from the CO or designee. The contractor shall provide emergency call back (after hours) requests up to 735 hours per contract year. Emergency Call Back (after hours) that is the result of negligence by the contractor will not be considered in the 735 hour limit per contract year. Emergency Call Back (after hours) that is due to contractor negligence shall be corrected at no additional cost to the Government. The contractor shall submit a running log containing the number of hours used monthly (first Monday of the following month) to the COR. After the 735 hour limit has been reached each contract year GSA will reimburse the Contractor for Emergency Call Backs (after hours) at the loaded wage rate (hourly rate plus fringe benefits) times 1.5 for overtime.

C.23.4 Urgent Service Request Response

Urgent service requests are those service requests where the work consists of correcting failures that interrupt or otherwise adversely impact either GSA operations or building occupant operations, but do not pose immediate danger. Examples of these types of service requests include, but are not limited to, inoperative electrical circuits, temperature complaints, inoperative lighting above a work station, flush valve stuck open, any malfunctions to equipment that affect the operations of building occupants, or any work considered by the CO or their designee to be of an urgent nature. The Contractor shall respond to urgent work requests within 1 hour during normal working hours. The Contractor shall remain on the job until the urgent repairs have been made. Permanent repair shall be governed by the repairs provisions within this document.

C.23.5 Routine Service Request Response

The Contractor shall respond promptly to routine work requests (i.e. plumbing & lighting issues) and complete the required work within 120 hours (continuous time, includes after hours and weekends) of notification. The Contractor shall immediately notify the CO or their designee with a written extension when the routine service call cannot be completed within the specified timeframe.

C.24. Tours (Reserved)

C.24.1 General (Reserved)

~~The Contractor shall tour major building equipment at set frequencies. Log sheets associated with major operating equipment shall be completed at the time of tours and the information recorded in the CMMS. At the commencement of Contract performance, CO or their designee will direct the Contractor to include on the log sheets established design condition numbers for reference against actual readings at the time tours are performed. Paper log sheets need not be used for equipment monitored and data logged by the BAS, if such monitoring and data logging provides a sufficient database of operating data to allow for analysis of trends in equipment performance and troubleshooting. The Contractor shall document all tours completed in the CMMS. All findings noted during the tour shall be entered as remarks on the tour sheet and a work order shall be initiated for corrective action by the Contractor.~~

C.24.2 Operating Logs ~~and Tour Check Sheets (Reserved)~~ (Water Cooled Chillers)

Operating logs for water cooled chillers shall be completed minimally once per day during normal duty hours.

~~Operating logs and tour sheets shall be maintained by the Contractor for major equipment. Information recorded on the logs shall be adequate to track the operating hours and performance history of the equipment and the information recorded in the CMMS. Tour check sheets shall be stationed at major points for building tours (for example, air handler rooms). These shall be checked, initialed and dated by the Contractor when tours are performed. There shall be different checklist columns on a standard tour check sheet for each frequency. Tour sheets shall contain columns for major operating parameters and shall indicate the tolerance bands for acceptable performance, where available.~~

C.24.3 Tour Frequencies (Reserved)

~~Minimum:~~

~~DAILY: Major HVAC equipment (when in operation), including boilers, chillers, cooling towers, pneumatic control air compressors, and air handler rooms. Fire alarm system control units (e.g. fire alarm system control units shall not have any unwanted trouble conditions). Steam system reducing and regulating stations. Special HVAC for critical functions.~~

- ~~a. WEEKLY: Distributed HVAC equipment including package units and external condensers, pumps, motors, sewage ejectors, fire pumps, and generators.~~
- ~~b. TWICE PER MONTH: Battery systems and uninterruptible power systems (UPS).~~
- ~~c. MONTHLY: Transformers, secondary electrical rooms, switchgear and primary electrical equipment rooms, condensate drip pans and roofs.~~

C.24.4 Condensate Drip Pans

All drip pans shall be treated with an appropriate biocide to control the growth of algae, etc. If any condensate pans are inaccessible, the Contractor shall notify the CO or their designee immediately.

C.24.5 RESERVED

C.25. Demand Response Programs

The Government may participate in any of the available demand response programs or critical peak pricing tariffs administered by utilities, State agencies, or third-party administrators. If the Government participates in such a program and advises the Contractor of the requirements of the program, the Contractor shall cooperate fully in the implementation of the program.

C.26. Curtailment Program (Reserved)

~~The Contractor shall develop a curtailment program in consultation with the CO or their designee and subject to approval; the program shall be described in the BOP (C.9.2). The Contractor shall implement all approved curtailment measures (which might typically include turning off unnecessary lighting, implementing temperature setback programs, etc.) immediately on notification of a curtailment, in accordance with the plan. Failure to diligently manage systems in accordance with such programs may result in performance deductions for excess costs .~~

C.27. BAS Alarm Response

The Contractor shall maintain all BAS systems using qualified employees. BAS alarms shall be treated as service requests and responded to accordingly. Any major adjustments to set points to accommodate tenant comfort shall be approved in advance by the CO or designee. Communications for alarms set up for remote notification shall be tested on a recurring basis.

C.28 Advanced Metering Program

GSA's purpose for installing these meters is to monitor, identify, and implement opportunities to reduce energy usage at the building(s) and, in some cases, to verify that the utility companies are billing correctly. In many cases, the AMS will be connected to the BAS. It shall be the Contractor's responsibility to partner with GSA to fully utilize the AMS to develop and implement strategies that will result in overall energy reductions.

C.28.1 RESERVED

C.29. Protection and Damage

The Contractor shall make reasonable efforts to assist the Government to prevent hazardous conditions and property damage and to maintain security. The Contractor shall promptly report such conditions or activities to the CO or their designee or Federal Protective Service (FPS) personnel. The Contractor shall protect Government property, buildings, materials, equipment, supplies, records, and data within the Contractor's control against unauthorized access, loss, or damage and excessive energy consumption. The Contractor shall establish a system for onsite work force personnel to report potentially hazardous conditions in the building to the CO or designee. The Contractor and Contractor's employees and subcontractors shall comply with the GSA's Rules and Regulations Governing Public Buildings and Grounds (as posted in the building) and shall promptly report violations by employees, or as otherwise observed, to the CO or their designee or security personnel. The Contractor shall provide reasonable assistance to security or emergency response personnel as needed.

C.30. Negligence

The Contractor shall provide all labor, materials and equipment necessary for the protection of Government personnel, equipment, furnishings, buildings, and facility accessories (such as parking lots, fences, etc.) from damage caused by Contractor's negligence. Any items damaged

due to work performed by the Contractor or subcontractor working for the Contractor shall be repaired or replaced to its original condition and finish at no additional cost to the Government. If equipment shall be operated beyond normal conditions to prevent damage to equipment, the Contractor will be responsible to pay for additional energy used as a result of negligence.

C.31. Key Control

The Contractor shall follow the building's key control program. Keys issued to the Contractor or the Contractor's personnel or subcontractors shall be signed for and not transferred to other personnel unless recorded in the key control log. The Contractor is financially liable for the cost of rekeying if keys are lost or not recovered from terminated employees or subcontractors.

The contractor shall be responsible for the key control program and furnish locksmith services and key blanks for routine installation and removal of lock-sets and tumblers, duplication of keys; repair of defective lock-sets; and opening doors in the event of lost keys.

In the event a master key in the Contractor's possession is lost, all locks and keys for that system will be replaced. All new locks shall fit existing Grand Master key system.

C.32. Disruptive or Hazardous Tools

The CO or their designee shall approve use of impact tools and power-actuated tools during normal working hours. Burning or welding equipment may be used only with written permission from the property management office or CO or designee. A Welding and Burning Permit (GSA Form 1755 or equivalent) shall be issued in advance for each day welding or burning is performed.

C.33. Scheduled Disruption to Utilities, Lighting, Fire Protection & Life Safety Systems, or Space Conditioning

Any work that will disrupt utilities, fire protection and life safety systems, lighting or space conditioning for building tenants shall be scheduled and approved in advance with the CO or their designee and is generally required to be performed outside of normal working hours.

C.34. Plumbing and Restrooms

Plumbing systems shall be maintained, repaired, and kept functional to the point of service delivery as defined by the utility company. The Contractor shall ensure all system drains, including storm drainage and roof drains, remain clear and unobstructed. The Contractor shall take any necessary steps to prevent odors emitting from drains or other plumbing systems into occupied space, to include keeping water in traps appropriately maintained. The Contractor shall clear toilet and sink blockages, as necessary. Such requests will be transmitted to the Contractor by the CO or their designee through service request procedures.
When replacing plumbing fixtures, use the most reduced water usage device as approved by the CO or designee. (For additional information see: http://www.epa.gov/watersense/)

C.35. Maintenance Program

C.35.1 General

The Contractor shall establish an effective system for scheduling and performing scheduled preventive maintenance on all building equipment and systems requiring a preventive maintenance procedure covered under the scope of this Contract. The Contractor shall submit this system to the CO or designee, including the list of items receiving a preventive maintenance procedure as well as the specific maintenance standard or guide describing the preventive maintenance procedure and frequency (see Section C.35.2, Maintenance Standard, below), for approval 10 days prior to Contract start date. NOTE: Air filters shall be replaced when necessary and not on a set schedule as described in the current GSA R7 CMMS. 1 year infrared testing shall be performed and not the 3 year electrical testing (PM Guide numbers E-25, E-26, E-27, E-28, E-30, and E-57) as described in the current GSA R7 CMMS.

C.35.2 Maintenance Standard

As part of the Contractor's established system for scheduling and performing scheduled preventive maintenance (See C.35.1, General, above), the Contractor shall propose to the CO or designee, preventive or predictive maintenance standards or guides for each piece of equipment where the manufacturer/designer recommends preventive maintenance. Minimally, the preventive or predictive maintenance standards or guides proposed by the Contractor shall be based on; manufacturer's recommended maintenance or the most current Public Buildings Service Operations and Maintenance Standards 2012 (PM Guide) or guides proposed by Contractor. If the Contractor uses the most current version of the PM Guides then the Contractor assumes responsibility that the PM guides all inclusive of all the required preventive maintenance requirements for equipment and systems in the building. The preventive or predictive maintenance standards proposed by the Contractor may be based on a combination of equipment manufacturer's recommendations, the PBS O&M Standards, (PM Guide), sensor technology, diagnostic software, Contractor's experience and other sources. The equipment requiring Contractor proposed preventive or predictive maintenance standards or guides shall include all of the building equipment when any of the following equipment characteristics apply:

a. The equipment normally requires periodic replacement of consumable components.
b. The equipment normally requires periodic or occasional cleaning.
c. The equipment has moving parts.
d. The equipment is prone to failure before overall obsolescence of the system it serves.
e. The equipment is of a type itemized in the NETA, Maintenance Testing Specifications.
f. The equipment requires inspection, testing, and maintenance in accordance with NFPA codes and standards.
g. The equipment requires maintenance in accordance with any other provision of this Contract.

The contractor shall schedule preventive maintenance on new equipment in the CMMS system when the extended maintenance service is completed by the installer and ensure that all pertinent warranty information and proposed maintenance plans are sufficient to uphold our obligations under the warranties.

The Contractor shall not use any Contractor-proposed preventive or predictive maintenance standards or guides or any of the Public Buildings Service Operations and Maintenance Standards guides to perform inspections, testing, and preventive maintenance on fire protection and life safety systems and equipment. The Contractor shall be required to use the NFPA Codes and Standards specified in this document to perform inspections, testing, and preventive maintenance of fire protection and life safety systems and equipment. In addition, the Contractor shall be required to follow the specific testing and inspection frequencies and

methods specified in such NFPA Codes and Standards. The Contractor shall record such inspection and testing services on the appropriate NFPA inspection and testing forms.

C.35.3 Application of Diagnostic Software

GSA is fielding diagnostic and optimization software to detect problems and inefficiencies in equipment operation. The Contractor shall act on the recommendations of such diagnostic and optimization software reporting. This may include using the results of the diagnostic and optimization software to manually generate a service request, or to respond to a service request automatically generated by the diagnostic program application. The failure of the Government to implement such diagnostic programs does not relieve the Contractor of responsibility for detecting, diagnosing, and correcting deficiencies and inefficiencies.

C.35.4 BAS Control Systems

Control systems shall be maintained as designed. The Contractor is responsible for all system hardware; for keeping software functioning and for reloading software in computers or controllers (application specific controllers -ASC) as necessary; for making set point adjustments as necessary and appropriate; for other than reloading programs and for making operator level changes such as set point adjustments. The Contractor is also responsible for periodic backups when the OCIO's office does not provide this function. The Contractor is responsible for updating software. The Government may upgrade or change control system software or reprogram control systems during the performance period of the Contract. If the Government provides operator level training and operator level documentation for the Contractor's use, the Contractor shall not claim additional payment for changing to the new or upgraded software or control programs. The Contractor shall not modify sequences of operation or control programs or run systems manually without prior approval of the CO or their designee and regional subject matter expert (SME).

C.35.4.1 BAS Operating Standards All computers networked with building monitoring and control systems located inside GSA facilities, or which provide storage of and/or access to GSA data, which includes data related to energy usage, industrial systems controls, physical access controls, lighting controls are required to be hosted exclusively on GSA's physical network and system infrastructure, unless otherwise excepted. The contractor shall maintain the following minimum standards: ***Connecting to the GSA Network – Federal IT regulations regarding Trusted Internet Connection (TIC) in conjunction with PBS and GSA and GSA CIO's IT Policies require all PBS systems needing network connectivity to reside on the GSA network.***

C.35.4.1.1 GSA-hosted Systems Requirements

a.) All building monitoring and control systems, applications and devices will be implemented as designated in the P100 (2011 or newer) and the PBS Building Technology Policy. Additionally, all government IT systems are required to meet FISMA standards for IT security.

b.) All building systems software, server and workstations based, will be hosted on Government furnished equipment (GFE)

c.) All IP traffic is managed by GSA, and IP addresses as well as all routing and switching equipment will only be furnished exclusively by GSA.

d.) All vendors provided software that has an End User License Agreement must be presented to and approved by GSA Office of the General Counsel before that software is purchased.

e.) Operations and Maintenance contractors will be responsible for supporting all cabled path ways to include copper and fiber cabling, necessary to enable IP network communication among system devices and network components, to include all break/fix requirements. All new cabling, to include break fix, should be done in accordance with PBS Telecommunications Distribution and Design Guide.

f.) Operations and Maintenance contractor is responsible for licenses, software, firmware, and security updates to all BAS system devices. GSA is responsible for the licenses, firmware, and software updates and upgrades of the Tridium Niagra Jace control systems, however the contractor is responsible for the maintenance and repair of them.

g.) Operations and Maintenance contract staff must receive preliminary favorable and ultimately completely favorable adjudication of their National Agency Check with Inquiries clearance in accordance with the HSPD-12 directive to obtain a GSA ENT user credential, which is required for all system access.

h.) At no time should a GSA hosted building monitoring and control systems be made accessible to the public internet or via any 3rd party network connection. No modems allowed without approval from Co or designee.

i.) Contractor must maintain a BAS log book next to the BAS front end. The contractor will document problems with the BAS as they are discovered. This log book will be used by the contractors BAS subcontractor, or qualified in house staff as a work list that needs to be fixed at their next scheduled visit.

C.35.4.1.2 RESERVED

C.35.4.2 Reporting **The** Contractor is responsible for notifying the Government if a sequence of operations or its implementation as a control program is not producing the desired results or is resulting in unnecessary energy use. The Contractor is responsible for notifying the CO or their designee if any systems are running out of sequence or manually. All instances shall be reported to the CO or their designee immediately. The Contractor is responsible for retaining an adequate level of expertise to manage the control systems. If the Contractor does not have a manufacturer trained or equivalent BAS operator onsite, who is also able to repair and or reprogram the system, other than just operating it, the Contractor shall enter into a subcontract, including regular scheduled support (not merely support on a contingency basis), or remote access; with a firm that has these skills.

C.35.5 RESERVED

C.35.6 RESERVED

C.36. Water Treatment

C.36.1 General
The Contractor shall provide equipment, chemicals, and services (including application) required to control corrosion, scale, algae, and bacterial growth in all HVAC equipment and systems throughout the building. The Contractor shall be responsible for conformity with all pertinent Local sanitation district regulations, air quality district regulations, and other environmental regulations. Water treatment shall be performed and safety equipment (e.g., emergency eyewash stations) maintained in accordance with OSHA standards.

C.36.2 Tolerances
Water shall be kept within tolerance bands in accordance with Exhibit 9 Water Treatment.

C.36.3 Initial Report and Development of Program
The Contractor shall perform a comprehensive initial water treatment analysis (laboratory analysis) within the first month of the Contract to assist in developing the water treatment plan. The Contractor shall propose a water treatment plan to be approved by the CO or designee.

C.36.4 Cooling Tower Water Management Plan
The Contractor shall perform a comprehensive water treatment per the appendix in Exhibit J.9. This exhibit establishes mandatory standards for water in HVAC and domestic water systems in GSA facilities, along with information related to the intent of the standards and guidelines that in most circumstances can be used to construct a water treatment program.

C.36.5 Corrosion Monitoring
The Contractor shall install coupon racks, or an equivalent electronic monitoring system for corrosion, in condenser water loops, heating hot water loops, and the building main chilled water loop, if not already present, not later than 30 calendar days after submission of the water treatment plan (For the primary condenser water system, the installation of the water treatment monitoring system described elsewhere in this document meets this requirement). The Contractor shall propose the type and manufacturer of the proposed coupon racks to be installed to the CO or their designee for final approval before installation. If coupon racks are present the Contractor may use such existing equipment, but is responsible for bringing it into conformity with all requirements in this document. The minimum quantity of coupons and frequency of inspections shall be described in the water treatment plan. Laboratory analysis of coupons shall be no less frequent than quarterly for major systems (e.g., primary building condenser and chilled water loops, as opposed to specialized systems serving limited areas), and annually for other systems. At a minimum, two coupon racks shall be installed for each loop, and used to monitor mild steel and copper. Coupon racks will be the property of the Government upon installation. The Contractor shall have responsibility for maintaining (and if necessary replacing) the coupon racks for the duration of the Contract. The liability threshold for repairs does not apply to this equipment; the Contractor has full responsibility. Acceptable corrosion rates are established in the most current Public Buildings Service Operations and Maintenance Standards. Molybdenum shall not be used in GSA buildings.

See Section C.42.3 Water-Based Fire Protection Systems, which references NFPA 25 for information regarding evaluating corrosion of water-based fire protection systems. Contractors during their inspection of water-based fire protection systems shall verify such systems are free from corrosion.

C.36.6 Monthly Testing

The Contractor shall provide a qualified independent water treatment specialist to draw a set of water samples monthly. Tests shall be performed as described in the water treatment plan. Samples shall be analyzed and a monthly report containing all pertinent information, relative to the conditions found when testing is performed, shall be submitted in the CMMS as an attachment to the work order. The results shall also be made available to the CO or designee at the weekly performance meeting.

C.37. Oil Analysis and Oil Changes

C.37.1 Periodic Oil Analysis

The Contractor shall establish and implement an oil analysis program incorporating the manufacturer's recommendations. Documentation shall include periodic oil analysis tests to be performed at least annually, diagnostic standards, and thresholds for oil changes. Oil analysis shall be conducted to maintain a consistent methodology for data collection, analysis, and historical trending. Periodic oil analysis shall include, but is not limited to, chillers of 50 tons or greater cooling capacity. Periodic oil analysis shall be performed prior to annual maintenance requirements so that results may be considered in performing maintenance. When testing is performed, the Contractor shall submit the report in the CMMS as an attachment to the work order. Where oil analysis indicates a need for corrective action, an appropriate work order shall be created in the CMMS and the appropriate corrective action taken by the Contractor.

C.37.2 Oil and Refrigerant Additives

Oil and refrigerant additives shall not be used.

C.38. Lamps and Ballasts

The Contractor shall replace failed lamps, to include appropriate ballasts if required, with the most efficient products available in accordance with existing building standards defined by the P100 or CO or designee. In lieu of such standards, lamps shall be replaced with the most efficient products available matching type and color temperature. The Contractor shall establish and implement a lamping and ballasts recycling program for fluorescent tubes and light bulbs in accordance with Environmental Protection Agency (EPA) and GSA standards.

The use of bulb crushers is strictly prohibited.

All handling, storage, labeling and disposal of mercury containing tubes and bulbs shall be in compliance with Universal Waste Rule guidelines (http://www.epa.gov/osw/hazard/wastetypes/universal/index.htm). The Contractor shall maintain the mercury content of all mercury-containing lamps below 75 pictograms per lumen hour, on weighted average, for all mercury-containing lamps acquired for the existing building and associated grounds. Screw-based compact fluorescent lamps may be excluded from this calculation if they meet the voluntary standards by NEMA. If the Contractor cannot find replacement lamps to meet this requirement while maintaining building standard lighting, the

Contractor shall immediately bring this to the attention of the CO or designee. The Contractor shall maintain documentation of all purchases of mercury-containing lamps and provide the information within the monthly progress report to the CO or designee.

C.39. Architectural and Structural Systems Maintenance

C.39.1 General

The Contractor shall maintain, repair, replace, modify, and restore all of the architectural and structural components of the building. In general, these components include walls, floors, doors, windows, docks, levelers, lighting, and all items that are part of or otherwise associated with them (including toilet paper dispensers, paper towel dispensers, and soap dispensers). The Contractor shall conduct routine inspection and minor maintenance and repair of interior and exterior architectural and structural systems components. Region 7 GSA sets the threshold of these type repairs at $200/3 hours of labor. We are not expecting you to replace the facade of a building, but if a piece has come off, we would expect you to repair it if it is under the service call threshold of $200/3hours.

C.39.2 Maintenance and Repair

The Contractor shall perform all architectural and structural maintenance and repairs or replacements to all equipment, electrical and mechanical systems, structures, architectural finishes, and utilities, located on, within, or beneath, this facility's interior and exterior extending to the legal property line**.** The Contractor shall ensure the building is free of missing components or defects that could affect the safety, appearance, or intended use of the facility or could prevent any electrical, mechanical, fire protection and life safety, plumbing or structural system from functioning in accordance with its design intent.

C.39.3 Repair and Replacement Work

Repair and replacement work shall be complete, including touch-up painting and operational checks. The quality of the work shall ensure that repaired areas are fully compatible with and match adjacent surfaces or equipment. All replacement items shall be consistent with design documents and match existing equipment in quality, dimension, and material, quality of workmanship, finish, and color.

C.39.4 Painting

Painting is considered "touch-up," for purposes of this Contract, when it is to repair a specific damaged area of paint. Painting should extend to logical break points such as the floor ceiling corner, doorway etc. to avoid a patched look.

Repainting to correct for normal wear and tear to painted surfaces over time is not required. Restriping of parking areas, driveways, roads, and vehicle inspection areas is required where striping is damaged or worn in a specific location, but not for general wear and tear of a large area over time. Repairs to pavement are required where a specific location is damaged but not where an extensive area is degraded. Painting in mechanical areas needed for OSHA compliance, consistent equipment appearance, or other safety reasons is required. If the Contractor must disturb materials he suspects may contain lead-based paint, the Contractor must immediately report the condition to the CO or designee. The machinery rooms including floors and the

equipment located within the machinery rooms shall be painted as necessary to maintain the appearance of the room and equipment. When painting, the contractor must comply with the ANSI color coding system outlined in the ASNI A13.1, Scheme for the Identification of Piping Systems, and maintain the identity (identification number) of the equipment.

C. 39.5 Interior Signage and Directories

The Contractor shall maintain and update building directories, to include electronic directories and tenant common corridor signage but not electronic directories that belong to our building tenants. The Contractor shall repair damaged interior or exterior signage in accordance with the repairs provisions in this document. Other changes to interior or exterior signage may be ordered from the Contractor as reimbursable items under the additional services provisions in this document.

C. 39.6 Finishes Maintenance

The Contractor shall ensure finishes are maintained to the manufacturer's specifications and levels that preserve a professional appearance and the integrity of the protected surface.

C. 39.7 Historic Building Preservation

The Contractor shall provide services that protect and preserve the historical integrity of the building. The Contractor shall consider any building 50 years old as historically significant, regardless of National Register status. The Contractor shall ensure any alteration of the building performed by the Contractor or their subcontractor protects the architectural integrity and compatibility with existing building structural accoutrements. The Contractor shall consult with the CO or their designee and obtain a copy, if available, of the building Historic Building Preservation Plan (HBPP) or Historic Structure Report (HSR) prior to any renovation work performed under this Contract on a building 50 years old or older. It may be possible that an HBPP has not been developed for the buildings at the time of this Contract award. In addition to the HBPP or HSR, the Contractor shall obtain a copy of The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. These documents shall be followed for Government purposes in the preservation of buildings. The Contractor and CO or their designee shall examine the requirements of any applicable documents for maintenance recommendations and specifications. If a conflict exists between applicable documents and Contract requirements, the Contractor shall not proceed until directed to do so by the CO or designee. The Contractor shall protect any work of art (painting, sculpture, carving, etc.) in the project area or close vicinity from possible damage during any renovation to the structure.

C.39.8 Vertical Transportation and Associated Equipment

The Contractor will be responsible for maintaining light fixtures, ballasts, and lamps installed in elevator cars and within the ceilings of cars. The Contractor is not responsible for maintaining lighting within hoist ways.

The Contractor is responsible for maintaining fire protection equipment and systems and ventilation and exhaust systems within hoist ways, elevator lobbies, and elevator machine rooms. The Contractor shall provide assistance in performing elevator testing, including after normal work hour requirements.

The Contractor is responsible for maintaining lighting, electrical equipment not directly part of elevator systems, and HVAC systems associated with elevator machine rooms and systems**.**

C.39.9 RESERVED

C. 40. Repairs

C.40.1 General

The Contractor shall perform reimbursable and non-reimbursable repairs as described in this document. Repairs are handled on a shared liability basis (See shared liability math example in C.40.3 Reimbursable Repairs). Relatively small value repairs (non-reimbursable repairs) are the responsibility of the Contractor in their entirety, and larger repairs (reimbursable repairs) shall be approved and funded by the Government for the cost amount above the Contractor threshold. If damage is caused by Contactor negligence, the Contractor shall be liable for the full cost of repair, any other provisions notwithstanding. The intent of this Contract is to ensure that most repairs will be accomplished by in-house Contractor personnel. However, the Government recognizes that occasionally there are certain specialized repairs that require specialized skills outside the skill sets of the in house O&M personnel. If the Contractor identifies a repair that they believe is of such a specialized nature that a specialized subcontractor is required to properly complete the repair, the Contractor shall provide written justification in advance, to the CO or designee, for approval of the need to use a subcontractor. The Contractor shall not use subcontractors to perform non-reimbursable repairs unnecessarily or with the intent of driving up the repair cost so the Government shall cover part of it. If approved, the cost of the subcontractor's labor and material will be treated as a repair part for the purposes of calculating the repair threshold. The subcontractor's cost shall be fair and reasonable and approved in advance by the CO or designee. All repairs shall use supplies, materials, and parts of the highest quality available that are appropriate for the repair of the given equipment or system. Any replacement parts used during the course of this Contract shall be of comparable or higher quality. Energy-consuming items shall be the most efficient in their class. The Contractor shall stock commonly used items and have a network of suppliers that will deliver ordered items without any delay. Any replacement motors shall be of premium efficiency. Whenever motors are replaced, motor size shall be recalculated and replacement motor selection shall reflect the appropriate size.

C.40.2 Non-reimbursable Repairs

A non-reimbursable repair is a repair requiring under $2,500 in cost for repair parts, materials only but no labor is cost included (including approved subcontracting costs). The cost of consumable parts and materials shall not be calculated as part of the Contractor's repair parts and material costs. Non-reimbursable repairs are entirely the Contractor's responsibility with no reimbursement from the Government.

Non-reimbursable repairs shall be completed within 120 hours (continuous time, includes after hours and weekends) of identification of the problem unless an extension is approved by the CO or designee. The work order shall be put into a status field in CMMS to indicate the nature of any delay, with appropriate remarks.

C.40.3 Reimbursable Repairs

Reimbursable repairs will be identified as single incident, not an accumulation of various repairs (bundling). If a repair exceeds the non-reimbursable repair cost threshold established above and

has been approved and verified by the CO or designee, it becomes a reimbursable repair. Reimbursable repairs are reimbursable to the Contractor, once approved by the CO or designee, for the portion (shared liability) of the cost exceeding the non-reimbursable threshold of $2,500 (see repair shared liability example below).

C.40.4 Miscellaneous Work

The Contractor shall provide 20 hours and up to $50.00 for parts and supplies per calendar month (hours and dollar amounts are not cumulative to succeeding months) when requested by the CO or designee, to accomplish discretionary work in the buildings covered by this Contract. No labor cost shall be included. The Contractor shall furnish the labor, tools and consumable materials as necessary to perform the work. Miscellaneous work may be required for work that makes use of any of the trades normally employed in performing operations and maintenance services under this Contract and does not include tasks associated with the performance of services covered under the scope of this Contract. The Contractor shall create and process CMMS work orders for all miscellaneous work, and accurately record hours of labor expended.

C.40.5 Repair Shared Liability Example:

In this example, the non-reimbursable repair threshold is $2,500. A repair is identified and estimated by the Contractor to cost $3,000.00 for repair parts and materials only. The CO or their designee will verify and approve both the need for the repair and the $3,000.00 estimated cost of repair parts and materials. In this example, the Contractor will pay the first $2,500 of the repair and GSA will pay the remaining $500.00.

a. Total estimated approved cost for repair parts and materials to complete repair	$3,000
b. Contractor's shared liability amount to be subtracted (same amount as the non-reimbursable threshold)	-$2,500
c. Total to be paid by GSA to the Contractor for the repair	$ 500

The required completion date for reimbursable repairs shall be established when the CO or their designee approves the work, as mutually agreed upon by the CO or their designee and the Contractor. The Contractor shall attempt to complete work as promptly as feasible. Immediately upon identification of a reimbursable repair, the Contractor shall create a work order in the CMMS and defer it by putting it in a "hold" status.

C.40.6 Approval of Work

When the Contractor determines that a repair is needed that exceeds the non-reimbursable repair threshold, the Contractor shall immediately notify the CO or designee. The CO or their designee shall issue a task order to the Contractor before the Contractor may proceed with the repair. The Contractor may defer performance of the reimbursable repair by placing the corresponding work order into a "waiting for funding" status from the time a valid proposal is given to the CO or their designee until the time an order is given to the Contractor. The time during which the work order is thus deferred will not count against the Contractor in calculating timeliness. The CO or their designee may prohibit the use of subcontractors if the CO or their designee determines the Contractor is unnecessarily driving up the cost of the work and the Contractor's own employees have the skills necessary to perform the work.

C.40.7 Invoicing

The Contractor shall invoice the Government for completed reimbursable repairs authorized orally, on a single itemized and consolidated invoice at the end of each month of performance. If the Contractor directly purchased parts or components, copies of receipts shall be attached. Reimbursable repairs authorized by task order may be invoiced separately upon completion and acceptance of work. Invoices shall also contain references to CMMS work order numbers.

C.40.8 Ordering Repairs from Outside Source

The Government reserves the right to order repairs from an outside source. If the repair is a reimbursable repair, the Government will inform the Contractor of the outside source's price, and deduct $2,500, or the outside source's price, whichever is less, from the Contractor's payments.

C.40.9 Force Majeure (Uncontrollable events)

Deficiencies or breakdowns caused by vandalism, misuse, abuse, or acts of God including natural disasters are fully reimbursable. The Contractor will be reimbursed under the additional services provisions described in this document or the Government will have the work performed by other means at no cost to the Contractor.

C.40.10 Warranties

The Contractor shall contact installers or manufacturers, as appropriate, for work that is covered under a warranty and maintain records of warranty service. The Contractor shall avoid actions that would invalidate a warranty, unless authorized by the CO or designee. If an installer or manufacturer fails to comply with the terms of a warranty, the Contractor shall immediately notify the CO or designee.

C.40.11 Quality of Materials and Replacement Parts

Replacement components and materials shall be of similar or better quality than the components replaced, considering energy efficiency, operational characteristics, power quality, control and data acquisition, maintainability, and durability. The CO or their designee may require replacement of components with components from the same manufacturer to maintain consistency throughout the building. Materials and parts that are visible to building occupants shall be to building standard and maintain the same appearance as similar materials and parts in the occupied space. Components of control systems shall be replaced so as to maintain the tie-in to the control system with no degradation of data throughput, memory, point capacity, data acquisition, or programmability. Motors shall be replaced with premium efficiency motors as defined by the NEMA MG-1 standard or in compliance with Local utility guide demand-side management rebate guidelines old transformers shall be replaced with NEMA-rated class one efficiency transformers in accordance with the NEMA TP-1 standard. Replacement of variable frequency drives shall be done in accordance with recommendations found in NEMA, Application Guide for AC Adjustable Speed Drive Systems. Energy Star-rated equipment shall be installed where available and when there is no engineering or operational reason not to select an Energy Star product.

C.41 Safety and Environmental Management

C.41.1 General

The Contractor shall use to the extent practicable, the safest and most environmentally friendly products and processes available. The Contractor shall be cognizant of and comply with all Federal, State, and Local laws and Regulations related to building management (permitting,

inspection, testing and personnel safety; control of hazardous substances, certification) to include materials and associated systems used or removed in the performance of this contract. Contractor shall comply with all such requirements, including record keeping. The Contractor shall comply with all Federal, State, and Local environmental and safety laws and regulations that relate to the maintenance and operation of equipment and systems within the scope of this Contract. The Contractor will be responsible for any fines or penalties levied by any environmental or regulatory authority resulting from their action or inaction, (not actions or inactions from a third party or the government) and may be charged the cost as a performance deduction under the Adjusting Payments clause. The Contractor's maintenance, operations, materials and processes shall use green products and processes including, but not limited to products containing recycled content, environmentally sustainable products and services, bio-based products, and products and services that minimize the use of energy, water, and other resources.

C.41.2 Scheduling and Recordkeeping

The Contractor shall maintain copies of all tests, certifications, permits and other required records, and provide copies to the CO and designee. In addition, all required safety and environmental tests; certifications, permits, and other procedures required in this document shall be scheduled in the CMMS work order system and documented in the CMMS or by other means if a CMMS is not available.

C.41.3 Refrigerants

C.41.3.1 Control and Certification

The Contractor shall control refrigerants and maintain records in accordance with EPA, GSA**,** and air quality management district standards. The Contractor shall take appropriate immediate action and report leaks to the CO or designee. The Contractor shall maintain and test refrigerant monitors, alarms and purge ventilation systems as part of the maintenance program. Testing shall use appropriate media to test sensors as well as alarm circuitry. Refrigerant control logs shall be updated as required, and a copy sent to the CO or designee. The Contractor shall also maintain a set of logs onsite and make this set of logs available to government inspection.

C.41.3.2 Certified Handlers

Contractor employees who come into contact with refrigerants in the course of their duties shall be certified to handle such refrigerants (EPA Section 608 Technician Certification Program). If equipment containing chlorofluorocarbon (CFC) or hydro chlorofluorocarbon (HCFC) refrigerants is removed from operation under this Contract, the Contractor shall recover all refrigerant in the equipment, seal it in appropriate storage containers, reclaim and reuse it as directed by the CO or designee, or dispose of it within EPA guidelines. In the event of fines or penalties levied by the EPA or an AQMD, the Contractor may be charged the cost as a performance deduction under the Adjusting Payments clause.

C.41.4 Local Air Quality Management Operating Permits

The Contractor shall be familiar with the requirements of the Local Air Quality Management District (AQMD), and shall ensure operating permits for boilers; generators and other emissions-producing equipment regulated by the district are up to date and have copies available to the CO or designee. In the event of fines or penalties levied by an AQMD, the Contractor may be charged the cost as a performance deduction under the Adjusting Payments clause.

C.41.5 Fuel Storage Tanks

The Contractor shall:

a. Comply with all Federal, State, and Local requirements for underground and/or above ground storage tanks.
b. Comply with any additional responsibilities required by the facility's Spill Prevention, Control and Countermeasure (SPCC) Plan including, but not limited to inspections, training, and recordkeeping if the facility must comply with SPCC requirements. Contractor shall update the SPCC plan as required.
c. Validate the inventory of all tank systems. GSA assesses tanks for compliance with current environmental design and installation standards.
d. Notify the CO or their designee not later than the end of the Startup and beginning of the Transition Phase and record within the Existing Deficiency/Initial Inspection Deficiency/closeout list observed instances of non-compliance to include but not limited to required registration documentation and monitoring systems.
e. Record the fuel levels monthly and report at weekly performance review meeting at the end of the month.
f. Record monthly usage logs and follow all fuel unloading procedures**.**
g. ~~Contractor shall ensure that on-site personnel are trained and certified to the appropriate level of Underground Storage Tank Operator training.~~

C.41.6 RESERVED

C.41.7 Polychlorinated Biphenyl (PCB) Control

The Contractor shall inspect all transformers containing polychlorinated biphenyls (PCBs) and maintain records of such inspections in accordance with State, Local, and EPA regulations. The CO or their designee shall be notified immediately if any such equipment is found to contain PCBs, or suspected to contain PCBs. Equipment verified to contain PCBs, except lighting ballasts, shall be labeled as containing PCBs. Any transformer leaks of PCBs shall be reported immediately to the CO or designee. The Contractor shall inspect all leaks in accordance with State, Local, and EPA regulations. The Contractor shall properly dispose of caulk that contains PCBs. The Contractor shall take immediate action to contain all leaks. There may be light ballasts containing PCBs in the buildings covered by this Contract. Replacement and proper disposal of all burned-out ballasts, including PCB ballasts, shall be the responsibility of the Contractor. Fluorescent lamps, batteries, and other items in any quantity subject to the Universal Waste Rules for Hazardous Waste Management and disposal shall be recycled or disposed of properly.

C.41.8 Facility Hazards

The Contractor shall assist in identifying facility health and safety hazards and report all hazards in writing to the CO or their designee on GSA Form 3614, GSA Notice of Unsafe/Unhealthful Workplace Conditions. The Contractor shall take immediate action to control hazards that present an imminent danger.

C.41.9 Workplace Safety

The Contractor shall develop a site-specific occupational safety and health program specifically addressing applicable components of 29 CFR 1910 and 29 CFR 1926. The safety and health program shall be submitted to the CO or their designee for review and approval 30 days after award. By approving the program, GSA assumes no responsibility for the Contractor's occupational safety and health program.

C.41.10 Electrical Safety
The Contractor shall comply with National Fire Protection Association (NFPA) 70: National Electrical Code and NFPA 70E: Standard for Electrical Safety in the Workplace, when working on or around electrical equipment or systems or switchgear equipment. The Contractor shall ensure that any and all areas restricted to qualified personnel are secured and properly labeled.

C.41.11 Fall Protection
The Contractor shall develop specific fall protection procedures for work on roofs, equipment, and other areas at elevation. The Contractor shall ensure fall protection equipment is provided to their employees and that employees are adequately trained.

C.41.12 Powered Platforms (Most sites do not have these)
The Contractor shall inspect, test, and maintain all permanently installed powered platforms in accordance with 29 CFR 1910.66, and provide copies of such certifications to the CO or designee.

C.41.13 Lockout/Tag Out
The Contractor shall develop a lockout/tag out program in accordance with 29 CFR 1910.147. The program shall include all anticipated energy sources, including but not limited to, electric City, steam, pressurized fluids, and mechanical energy. The Contractor shall communicate the Lockout/Tag out program to all other affected Contractors.

C.41.14 Confined Spaces
The Contractor shall identify and label all confined spaces in accordance with OSHA requirements. Contractor shall record all identified confined spaces in the CMMS as hazards. The Contractor shall develop a confined space entry permit system for all permit-required confined spaces within 60 calendar days of commencement of the Contract.

C.41.15 Asbestos Management
The Contractor shall be expected to occasionally perform Class III and Class IV asbestos work as defined in 29 CFR 1926.1101. The Contractor shall be prepared to deal with asbestos on a small-scale, short-duration basis to effect emergency repairs and to clean up small spills. The Contractor shall protect building tenants, visitors, and employees from asbestos exposure. The Contractor shall comply with applicable OSHA regulations and all applicable Federal, State, and Local asbestos regulations. The Contractor shall immediately become familiar with, comply with, and recommend any appropriate changes to the Government Asbestos Management Plan for the building. If the Contractor must disturb materials he suspects may contain ACM, the Contractor must immediately report the condition to the CO or designee. Contractor personnel who perform the abovementioned work shall have been appropriately trained in accordance with 40 CFR Part 763.

C.41.16 Hazardous Materials

C.41.16.1 SDS
The Contractor shall make material safety data sheets (SDS) available to their employees in accordance with 29 CFR 1910.1200. SDS shall also be made available to the CO or their designee on request. The Contractor shall prepare and submit a hazardous materials inventory as an appendix to the building operating plan. The inventory shall itemize all hazardous materials by specific type as sold with individual SDS and include information pertaining to approximate

quantities of each type and exact locations where hazardous materials are to be stored on the premises.

C.41.16.2 Disposition of Hazardous Waste

Hazardous Wastes not subject to the Universal Wastes Rule shall be managed in accordance with 40 CFR 260. Universal Wastes (fluorescent lamps, certain batteries and pesticides) in any quantity subject to the Universal Waste Rules shall be recycled or disposed of as Hazardous Waste. Preference is given to recycling of intact items.

C.41.16.3 Environmental Reporting

The Contractor shall provide all necessary information required in this Section to comply with environmental and green purchasing reporting requirements, and agency sustainability goals in this specification. The Contractor shall submit to the CO or their designee the following reports.

(a) Waste Reports. The Contractor shall submit a quarterly report on waste handling activities to include disposal and recycling (See Section J, Exhibit 18). The report shall contain shipping information for hazardous and non-hazardous waste and be submitted by the 15th of each month and upon request by the CO or their designee. Report shall include the waste type, name and final disposition destination. All Hazardous and Universal Waste shipping documentation shall be maintained for the life of the building. If the Contractor performs non-hazardous solid waste management for the entire building, they shall also report on these solid waste and recycling activities.

(b) The Contractor shall submit information on green purchasing practices specific to the performance of this contract. Records showing the monthly cost of green cleaning products and materials purchased shall be provided to the USDA and the CO or their designee by the Contractor so that this report can be submitted by the CO or their designee as required by the Resource Conservation and Recovery Act (RCRA), USDA, and EO 13514. Reportable information is provided in Section J, Exhibit 2 for Non-Bio-based products.

C41.16.4 Recycled Content Product Purchase Annual Reporting

The Contractor shall provide reports, estimating the percentage of total recovered material used in Contract performance, including, if applicable, the percentage of post-consumer material content, to the CO or their designee in compliance with the Contractor schedule.

C.41.16.5 Non-Bio-based Products

The Contractor shall submit a report of all non-bio-based products to include: Green Seal, Design for Environment (DfE), CPG, EcoLogo and Environmental Choice (low VOC, Non-Ozone Depleting), as well as non-green (Hazardous/Toxic products).

C.41.16.6 Bio-Based Products

For categories of items that are EPA-designated (e.g. Comprehensive Procurement Guidelines [CPG]) and USDA designated in the Bio Preferred Program (visit http://www.biopreferred.gov/), and all other factors (such as price, performance, and availability) being equal, the contractor shall selected the CPG item. For other purchases, unless the contractor receives an exemption from the Contracting Officer, the contractor shall select USDA designated products over products with other sustainable attributes.

The Contractor shall report all USDA-designated bio-based products purchased October 1 - September 30, during the previous fiscal year. Information will include the types and dollars spent on these products. The reports shall be submitted to the https://www.sam.gov/ no later than October 31 of each year during Contract performance and at the end of Contract performance. In addition, the reports shall be submitted to the environmental point of contact (EPOC) as identified in FAR Clause 52.223.2, and a copy to the CO or their designee.

C. 41.17 Boiler/Pressure Vessel Operation and Inspection Standards

C.41.17.1 Boiler operation and Inspections shall be in accordance with applicable codes and regulations including but not limited to:

a. ASME Boiler and Pressure Vessel Code.
b. National Board Inspection Code.
c. Environmental Protection Agency and Local AQMD requirements.
d. ASME CSD-1, Control & Safety Devices for Automatically Fired Boilers.
e. NFPA 85, Boiler and Combustible Systems Hazards Code.

C.41.17.2 Inspections and Tests

Boiler inspections shall include internal and external (operating) inspections and tests described in Chapter 2, Inspection of Boiler and Pressure Vessels, of NBIC. The Contractor shall require the inspector to complete GSA Form 349 (Inspection Report of Boiler) or an equivalent approved form for each boiler inspected. The Contractor shall have unfired pressure vessels with design operating pressure in excess of 60 pounds per square inch (psi) and a capacity in excess of 15 gallons inspected annually. The Contractor shall complete GSA Form 350 (Inspection Report of Unfired Pressure Vessels) or an equivalent approved form for each unfired pressure vessel inspected. A GSA Form 1034 (Certificate of Inspection) or an equivalent approved form shall be completed and posted on or near the equipment. Inspections shall be made by inspectors certified by the National Board of Boiler and Pressure Vessel Inspectors, who shall be employed by an independent firm specializing in boiler and unfired pressure vessel inspections.

C. 41.17.3 Backflow Prevention Devices

The Contractor shall maintain all existing backflow prevention devices and certify them as prescribed by Federal, State, and Local laws, ordinances, and regulations. If no Local requirement exists, a certified inspector shall inspect all existing backflow prevention devices on an annual basis, record the inspection as a work order in the CMMS and provide certification of proper operation to the CO or designee. While the Government will generally pass on to the Contractor backflow testing notices received from Local water districts or other Local authorities, the Contractor is responsible for timely completion and submission of such test results regardless of receipt of such notices. In addition to other requirements, backflow prevention devices used on water-based fire suppression systems shall be inspected, tested, and maintained in accordance with NFPA 25.

C.41.17.4 Potable Water Systems

The Contractor shall comply with The Safe Drinking Water Act, PL 99-339, as amended, and the Environmental Protection Agency Safe Drinking Water regulations (40 CFR 141.43, Sections A and D), which address the quantity of lead allowable in new installations or repairs to existing drinking water systems and or plumbing. Potable water systems that are repaired, modified,

serviced, or breeched in any way shall be disinfected and flushed as needed prior to returning the system to service. Contractor is required to comply with all Federal, State, and Local codes in the operation, treatment, and testing of potable water systems.

C.41.18 Labeling and signage

The Contractor shall maintain the labeling of existing equipment, pipes, storage areas, containers, confined space, and workspaces as well as associated signage, in accordance with OSHA standards to ensure labels are visible and not obliterated. Any equipment, pipes, etc., newly installed by the Contractor require labeling and signage per OSHA standards shall be labeled immediately upon completion of the installation and maintained throughout the Contract period.

C.41.19 Roof Anchorage Points (Reserved)

~~The Contractor shall provide for an annual inspection of designated roof anchorage points by qualified personnel. Anchorages shall be inspected in accordance with the anchor manufacturer's requirements and additional requirements contained in the installation certification. Copies of the inspection reports shall be provided to the CO or designee. If an area of suspicion is identified, the anchorage shall be tagged "out of service" and immediately reported to the CO or designee. ANSI/IWCA I-14 may be consulted for further guidance.~~

C.42. Fire Protection and Life Safety Equipment and Systems

C.42.1 General

Each of the requirements listed below shall apply to all of the paragraphs in Section C.42

a. The Contractor is responsible to utilize the latest edition of the applicable NFPA code or standard, in effect at the time of contract award, throughout the term of the contract.
b. The Contractor shall ensure all fire protection and life safety systems and equipment are kept operational at all times, except while being tested or repaired.
c. The Contractor shall ensure all maintenance and preplanned impairments of the fire protection and life safety systems and equipment have been authorized and approved by the CO or their designee prior to the Contractor performing any work.
d. The Contractor shall utilize technicians that meet the applicable requirements in Section H15.3.
e. The Government reserves the rights to have the Contractor remove any employee that poses a threat to the health, safety, or security of the building occupants.
f. The Government reserves the rights to conduct any test or inspection it deems necessary to ensure all contract performance requirements are being met.
g. The Contractor shall comply with all appropriate safety code requirements. If the Contractor encounters equipment that is in a condition that may endanger life or property, the Contractor shall immediately notify the CO or their designee of the condition requiring immediate action. Within 24 hours following the notification of the CO, the Contractor shall provide to the CO or their designee a written report of the hazardous condition and recommended corrective action.
h. The Contractor is responsible for meeting the inspection and testing frequencies, test methods, and documentation requirement for each fire protection and life safety system referenced in the applicable NFPA code or standard.
i. The Contractor is responsible for providing all tools, supplies, and equipment necessary to properly perform inspections, tests, and maintenance of the fire protection and life safety equipment and systems in accordance with applicable NFPA code or standard.

j. The Contractor shall be responsible to leave areas where they perform work neat, clean, and orderly.
k. The Contractor shall document all inspections, test results, and maintenance performed on the suggested inspection, testing, and maintenance forms referenced in the applicable NFPA code or standard. These completed forms shall be included with the Contractor's Monthly Progress Report.
l. Any deficiency identified by the Contractor during a required inspection shall be entered into CMMS as a work order; evidence of correcting such deficiency, unless funding is not available, shall be provided with the subsequent Contractor's Monthly Progress Report after correction action is completed.

C.42.2 Fire Alarm System Services

Services include, but are not limited to; the performance, inspection, testing, and preventive maintenance or repair of a variety of fire alarm and notification systems, equipment and components such as manual alarm devices, smoke and heat detectors, tamper switches, pressure switches, water flow switches, remote and graphic annunciations, main fire alarm panel and components, voice alarm systems, speakers, horns, and other audible and visual devices, wiring circuits and junctions, supervising station alarm system transmission equipment, emergency power supplies and all other ancillary devices that operate related equipment (e.g., HVAC shutdown, dampers, elevator recall, door closing devices and door unlocking devices.

All fire alarm system inspections, tests, maintenance, and repairs performed under this contract shall comply with the NFPA 72, National Fire Alarm and Signaling Code.

Fire alarm system testing, maintenance and repair shall be performed during normal business hours when it does not interfere with building operations. When such testing, maintenance or repair will interfere with building operations; it shall be performed after normal business hours without additional costs to the government, unless approved otherwise by the CO or designee. The Contractor shall provide a fire watch in areas left unprotected or if the system is out of service for more than 4-hours in a 24 hour timeframe. The fire watch shall remain in place until the fire alarm system is completely restored during the performance of routine service and testing procedures. If the system cannot be restored through no fault of the Contractor's, a fire watch still shall be provided until the system is restored, however the Contactor ~~may seek reimbursement~~ shall be reimbursed for the after fire watch after normal business hours with ~~the~~ CO or designee approval. Fire watches performed after hours will be considered as Emergency Call Back (after hours) for consideration of reimbursement to the Contractor after the limit is reached. See paragraph C.23.3 for limit and reimbursement process.

It is essential that the Contractor carefully schedule with the property manager and CO or their designee all non-emergency shutdowns of the fire alarm system and that back up protection be provided by the Contractor (e.g., arrangement of additional personnel stationed in the areas affected and at the fire alarm system control panel) any time that the fire alarm system is out of service for more than 4 hours. The affected portion of the system shall be tested to ensure that the protection has been properly restored.

In no case shall the fire alarm system be left in a disabled condition without notifying the CO or their designee and providing a fire watch.

C.42.3 Water-Based Fire Suppression Systems

Services consist of, but are not limited to; the performance , inspection, testing, and preventive maintenance or repair services of all mechanical devices, including valves, sprinklers, couplings, piping, hose connections, water motor gongs and alerting devices, tamper switches, pressure switches, water flow switches, standpipes, backflow preventers, private fire service mains, water storage tanks, fire pumps, and test headers.

All water-based fire extinguishing system inspections, tests, maintenance, and repairs performed under this contract shall comply with the NFPA 25, Inspection, Testing, and Maintenance of Water-Based Fire Extinguishing Systems.

Water-based fire suppression system testing, maintenance and repair shall be performed during normal business hours when it does not interfere with building operations. When such testing, maintenance or repair will interfere with building operations; it shall be performed after normal business hours without additional costs to the government, unless approved otherwise by the CO or designee. The Contractor shall provide a fire watch in areas left unprotected or if the system is out of service for more than 4-hours in a 24 hour period. The fire watch shall remain in place until the water-based fire suppression system is completely restored to service during the performance of any routine service and testing procedures. If the Contractor believes they were not able to restore sprinkler service due to circumstance outside of their control, the Contractor may request reimbursement for that portion or the fire watch from the CO or designee.

It is essential that the Contractor carefully schedule with the property manager and CO or their designee all non-emergency shutdowns of the sprinkler system and that back up protection be provided by the Contractor any time the sprinkler system is out of service for more than 4 hours. The affected portion of the system shall be tested to ensure that the protection has been properly restored.

In no case shall any water based fire suppression system be left in a disabled condition without notifying the CO or their designee and providing a fire watch.

C.42.4 Fire-rated Door Assemblies

Services consist of, but are not limited to, the inspection, testing, and maintenance of all fire-rated door assemblies. All fire-rated door assemblies' inspections, tests, and maintenance performed under this contract shall comply with the NFPA 80, Standard for Fire Doors and Other Opening Protectives. Please note that the inspection of fire-rated door assemblies shall also meet the requirements in NFPA 101, Life Safety Code.

C.42.5 Fire Damper and Combination Fire/Smoke Dampers

Services consist of but are not limited to, the inspection, testing, and maintenance of all fire dampers, radiation dampers, and combination fire/smoke dampers. All fire damper, radiation damper, and combination fire/smoke damper inspections, tests, and maintenance performed under this contract shall comply with the NFPA 80, Standard for Fire Doors and Other Opening Protectives. Please note that maintenance of combination fire/smoke dampers shall also meet the requirements contained in NFPA 105, Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives.

C.42.6 Smoke Doors Assemblies

Services consist of, but are not limited to; the inspection, testing, and maintenance of all smoke door assemblies. All smoke door assemblies inspections, tests, and maintenance performed under

this contract shall comply with the NFPA 105, Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives.

C.42.7 Smoke Dampers
Services consist of, but are not limited to, the inspection, testing, and preventive maintenance of all smoke dampers. All smoke damper inspections, tests, maintenance, and repairs performed under this contract shall comply with the NFPA 105, Standard for the Installation of Smoke Door Assemblies and Other Opening Protectives.

C.42.8 Portable Fire Extinguishers
Services consist of, but are not limited to; the inspection, testing, and preventive maintenance of all portable fire extinguishers. All portable fire extinguisher inspections, tests, and maintenance performed under this contract shall comply with the NFPA 10, Standard for Portable Fire Extinguishers.

C.42.9 Non-Water-Based Fire Extinguishing Systems
Services consist of, but are not limited to, the inspection, testing, and preventive maintenance of the following types of non-water-based fire extinguishing systems:

a. Carbon dioxide extinguishing systems, NFPA 12, Standard on Carbon Dioxide Extinguishing Systems.
b. Halogenated extinguishing systems, NFPA 12A, Standard on Halon 1301 Fire Extinguishing Systems.
c. Dry chemical extinguishing systems, NFPA 17, Standard for Dry Chemical Extinguishing Systems.
d. Wet chemical extinguishing systems, NFPA 17A, Standard for Wet Chemical Extinguishing Systems.
e. Fire extinguishing systems, NFPA 96, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.
f. Clean agent fire extinguishing systems, NFPA 2001, Standard for Clean Agent Fire Extinguishing Systems.

C.42.10 Smoke Control Systems
Services consist of, but are not limited to; the inspection, testing, and preventive maintenance of smoke control systems. All smoke control system inspections, tests, maintenance, and repairs performed under this contract shall comply with the NFPA 92, Standard for Smoke Control Systems.

C.42.11 Emergency and Standby Power Systems
Services consist of, but are not limited to; the inspection, testing, preventive maintenance, and exercising of equipment per the manufacturer's recommendations for the following types of emergency and standby power systems:

a. Emergency power supply systems, NFPA 110, Standard for Emergency and Standby Power Systems.
b. Stored electrical energy emergency and standby power systems, NFPA 111, Standard on Stored Electrical Energy Emergency and Standby Power Systems.

C.42.12 Emergency Lighting Systems and Exit Signage

Services consist of, but are not limited to; the inspection, testing, and preventive maintenance of emergency lighting systems, emergency lighting equipment, and exit signage. All emergency lighting systems, emergency lighting equipment, and exit signage inspections, tests, maintenance, and repairs performed under this contract shall comply with the NFPA 101, Life Safety Code.

C.42.13 Fire Alarm System Central Station Monitoring

The Contractor shall provide and maintain a UL-listed central station monitoring service (including 2 telephone lines) to monitor all fire alarm transmitters and related equipment. The Contractor shall ensure all fire alarm systems are connected to the monitoring service. During any period when the central station monitoring is not operational, the Contractor shall maintain a fire watch. If the Contractor believes the central station monitoring failure was through no fault of his own, the Contractor shall request reimbursement for the fire watch from the CO or their designee.

C.43. RESERVED

C.44 Submittals Chart (Contractor Deliverables)

DELIVERABLE	REF	DELIVERABLE DUE	Due Date	Rec'd
Fuel Use Log	C.2.15	Monthly (first Monday of the following month).		
Existing Deficiency Inspection/Initial Deficiency/closeout List	C.4.2	Report due not later than 30 days after award of the Contract.		
Transition Phase including staffing plan, etc.	C.5.1	Transition phase is 30 days prior to Contract start date.		
Phase out transition	C.6	On the last performance day of the Contract, Contractor must turn over keys and identification badges or cards.		
List of key personnel and emergency contact information, which may include subcontractor contacts as applicable	C.8.1	The Contractor must develop and submit to the CO within 21 days of Contract award.		
Quality Control Program	C.8.6	Develop and submit for approval prior to issuance of Notice to Proceed.		

Building Operating Plan	C.9.1	Meet with Property Management Office within 60 days start date to assist in updating the current BOP		
Equipment inventory update	C.10	The Contractor must update and verify the equipment inventory on an annual basis.		
~~Monthly Progress Reports~~	C.11	~~On a monthly basis, not later than the fifth working day of the subsequent month~~		
Performance Review Meetings	C.12	Weekly meeting		
Equipment condition assessment	C.13	Weekly meeting		
Establish Reference Library	C.15	Ongoing		
Review of design documents	C.16	Review as requested by the CO or designee.		
Provide Building Management Support Services	C.17	Upon Request		
Inspect Assistance for Space Build outs	C.18	As required		
~~Emergency Shutdown Checklist~~	C.19	~~Posted in Mechanical/Electrical rooms~~ (Suggested, but not required)		
Labeling of Electrical Circuits	C.20	Ensure added or modified circuits are labeled.		
~~Energy and Water Efficiency~~	C.21.6	~~Building Energy and Water Efficiency Use Plan or Annual Energy and Water Efficiency Use Plan based on Operational Performance Targets~~		
Emergency service request or callback after hours	C.23.3	Respond to emergency service requests and after hour callbacks within 1 hour.		

Emergency Call Back (after hours) Log	C.23.3	Monthly (first Monday of the following month).		
Urgent service request	C.23.4	Respond to urgent service requests within 1 hour.		
Routine service request - response extension request	C.23.5	Respond to routine service request within 120 hours.		
Preventive maintenance system	C.35.1	At least 10 work-days prior to Contract start date.		
Initial report and development of water treatment program	C.36.3	Within 1st month of the Contract start date. Put in CMMS		
Water treatment testing or makeup water chemical tracking	C.36.6	Discuss at weekly meeting and input into CMMS		
Periodic oil analysis	C.37.1	At least annually, input into CMMS		
Lamps and ballasts containing mercury record	C.38	Report in accordance with Universal Waste Guidelines		
Repairs using subcontractors	C.40.1	Must provide justification for subcontract need in advance.		
Warranties not honored by manufacturer.	C.40.10	Contractor must immediately notify CO if an installer or manufacturer fails to comply with the terms of a warranty.		
Scheduling and Recordkeeping	C.41.2	Furnish copies of tests, certifications, permits, procedures, and other records, as requested.		
Control and Certification	C.41.3	Refrigerant control logs must be updated and inspected as required.		
Local Air Quality Management Operating Permits	C.41.4	Copies made available upon request.		
Polychlorinated Biphenyl (PCB) Control	C.41.7	Immediate notification of transformer leaks of PCBs.		

Facility Hazards	C.41.8	Report all facility health and safety hazard in writing and take immediate action to control hazards that present an imminent danger.		
Workplace Safety	C.41.9	A health and safety program must be submitted for review and approval 30 days after award.		
Workplace Safety	C.41.9	Safety and Health Program must be submitted for review and approval 30 days after Contract award.		
Confined space entry permit system.	C.41.14	The Contractor must develop a confined space entry permit system for all permit-required confined spaces within 60 calendar days of the Contract start.		
Disposition of Hazardous Waste	C.41.16.1	SDSs must be made available on request. The Contractor must prepare and submit hazardous materials inventory as an appendix to the building operating plan.		
Bio-based Products	C.41.16.6	Annually October 31		
Boiler Inspections and Tests	C.41.17.2	Boilers must be inspected annually and Forms 349, 350 and 1034 completed as required.		
Backflow Prevention Devices	C.41.17.3	Annually.		
Fire protection systems on line at all times unless approval is given during maintenance periods.	C.42.1	Advance notification and approval per occurrence. This covers all fire system requirements.		
Qualification of employees (May 1989) paperwork.	H.1.3	Submit forms as requested.		
Recording Presence	H.7	GSA form 139's should be made available upon		

		request.		
Green Purchasing Reporting	H.12.2	As required.		
Asbestos awareness training certification.	H.13	Training within 60 calendar days after start. Certify completion within 5 days of training.		
Submission of resumes for new employees.	H.15.4	The Contractor must submit resumes for all personnel prior to personnel beginning work.		
State licensing – if required.	H.15.5	Within 90 calendar days of beginning employment.		
Strike contingency plan (SCP) submission.	H.20	SCP must be submitted 5 calendar days prior to Contract start date and updated annually.		

C.45 Federal Requirements:

PUBLICATION	TITLE		PORTION
EPACT 05	Title I Energy Efficiency Title IX Research and Development		All Applicable Sections of these Titles
EISA 07	Title III Energy Savings Through Improved Standards for Appliances and Lighting. Title IV Energy Saving and Buildings Industry. Title V Energy Savings in Government and Public Institutions.		All Applicable Sections of these Titles
Executive Order 13423	Strengthening Federal Environmental, Energy, and Transportation Management and all implementing guidance documents. http://edocket.access.gpo.gov/2007/pdf/07-374.pdf		ALL
Executive Order 13514	Federal Leadership in Environmental, Energy, and		ALL

	Economic Performance http://edocket.access.gpo.gov/2009/pdf/E9-24518.pdf		
29 CFR Part 1910	OSHA General Industry Standards (http://www.access.gpo.gov/nara/cfr/waisidx_06/29cfr1910a_06.html)		ALL
40 CFR	Protection of the Environment http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?sid=cb067c6143d1efa48ac4d1222120a7b6&c=ecfr&tpl=/ecfrbrowse/Title40/40tab_02.tpl	All Applicable Sections of Chapter 1	
41 CFR Part 102-74, Subpart C. - FMR	Facility Management http://www.access.gpo.gov/nara/cfr/waisidx_06/41cfr102-74_06.html	ALL	
ANSI-IWCA.I-14.1	http://webstore.ansi.org/FindStandards.aspx?SearchString=ansi&SearchOption=1&PageNum=0&source=google&adgroup=ansi&keyword=ANSI%2F&gclid=CJnM65r-rqQCFUNM5QodRnhXyw	ALL	
ANSI/ASEE A-1264.2-2006	www.ANSI.org	ALL	
ANSI Z245.1	Mobil Refuse Collection and Compactor Equipment-Safety Requirements http://webstore.ansi.org/ansidocstore/product.asp?sku=ANSI+Z245.1-2007	ALL	
ASTME 1971-05	http://www.astm.org/Standards/E1971.htm	ALL	
GSA Green Purchase Plan	http://insite.gsa.gov/portal/content/520186	ALL	
Guiding Principles for Sustainable Existing Buildings	http://www.wbdg.org/references/fhpsb_existing.php	Section 3-5	
Bio Based Products	http://www.dm.usda.gov/procurement/programs/biobased/biobaseditems.htm	ALL	

Comprehensive Procurement Guidelines (CPG)	http://www.epa.gov/cpg/about.htm	ALL	
PBS P 5800.36A	GSA Property Management Business Practice Handbook http://insite.gsa.gov/portal/content/522198	ALL	
Green Products Compilation Database	sftool.gov	ALL	
Bio-based Products Certification and Procurement Clauses	http://www.dm.usda.gov/procurement/programs/biobased/biobaseditems.htm	ALL	

D. PACKAGING & MARKING

E. INSPECTION & ACCEPTANCE

RESERVED

F. DELIVERIES OR PERFORMANCE

G. CONTRACT ADMINISTRATION DATA

G.1. POINTS OF CONTACT FOR CONTRACT ADMINISTRATION

In order to expedite administration of the contract, the Contractor will direct inquiries to the appropriate point of contacts.

(a) Contracting Officer, Brian Dwyer, brian.dwyer@gsa.gov, 817-978-7336
(b) Contract Specialist, Stephan Harris, stephan.harris@gsa.gov, 817-978-0106
(c) Contracting Officer Representative, Suzan Augilar, susan.aguilar@gsa.gov, 915-534-6267

G.2. ADMINISTRATIVE FUNCTIONS AND LIMITATIONS

(a) The Contracting Officer will delegate the day-to-day administrative duties under this contract to the Contract Specialist; however, the Contracting Officer has the overall responsibility for the administration of this contract. Only the Contracting Officer can amend, modify, or deviate from the contract terms, conditions, requirements, specifications, and/or delivery schedules; make final decisions on disputed deductions from contract payments for nonperformance or unsatisfactory performance; terminate the contract for convenience or default; and/or issue final decisions regarding contract questions or matters under dispute.

(b) The Contracting Officer Representative (COR) will assist the Contracting Officer in certain delegated administrative duties under this contract. In accordance with Section E, the COR will accomplish inspection and acceptance of deliverables and monitor contractor performance under this contract. The COR does not have the authority to alter the Contractor's obligations or change the terms and conditions of the contract. If, as a result of technical discussions, it is desirable to alter contract obligations or the statement of work, a modification must be issued in writing and signed by the Contracting Officer. Unless terminated sooner, this appointment is effective for the period of performance of this contract including any options, if exercised. No change in COR assignment shall be made without written notice by the Contracting Officer, who will modify the contract to reflect the change of COR assignment.

(c) The COR may delegate to Contract Inspectors the day-to-day inspection and monitoring of the Contractor's work. The responsibilities of the Contract Inspectors include, but are not limited to, inspecting the work to ensure compliance with the contract requirements; documenting through written inspection reports the results of all inspections conducted; following through to assure that all defects or omissions are corrected; recommending deductions from contract payment for nonperformance or unsatisfactory performance; conferring with representatives of the Contractor regarding any problems encountered in the performance of the work.

G.3. KEY CONTRACTOR PERSONNEL

(a) The Contractor agrees to assign to the contract tasks those persons whose resumes were approved by the COR and who are necessary to fulfill the requirements of the contract as "key personnel". No substitutions may be made except in accordance with this clause.

(b) The Contractor understands that during the first ninety (90) days of the contract performance period, no personnel substitutions will be permitted unless these substitutions are unavoidable because of the incumbent's sudden illness, death or termination of employment. In any of these events, the Contractor shall promptly notify the Contracting Officer and provide the information described in paragraph (c) below. After the initial ninety (90) day period the Contractor must submit to the Contracting Officer all proposed substitutions, in writing, at least thirty (30) days in advance (sixty (60) days if security clearance must be obtained) of any proposed substitution and provide the information required by paragraph (c) below.

(c) Any request for substitution must include a detailed explanation of the circumstances necessitating the proposed substitution, a resume for the proposed substitute, and any other information requested by the Contracting Officer. Any proposed substitute must have qualifications equal to or superior to the qualifications of the incumbent. The Contracting Officer or his/her authorized representative will evaluate such requests and promptly notify the Contractor of his/her approval or disapproval thereof.

(d) In the event that any of the identified key personnel cease to perform under the contract and the substitute is disapproved, the contract may be immediately terminated in accordance with the termination clause of the contract.

The Contractor will provide to the Contracting Officer the names, titles, e-mail addresses, and phone numbers of key personnel at time of award.

G.4. PAYMENT (GENERAL)

The GSA Finance Division (7BCP), P.O. Box 17181, Fort Worth, TX 76102-0181, is responsible for payments under this contract.

Payment for any service rendered will be due in accordance with the Prompt Payment clause in Section I. In the event the contract begins or ends prior to the last day of month, payments will be prorated based on the number of workdays in the respective month.

G.5 SUBMISSION OF INVOICES FOR RECURRING MONTHLY SERVICES

Payment for recurring monthly services will be made on the basis of a monthly invoice, in arrears. Invoices must be submitted to GSA's Office of Finance, either through electronic invoicing or by mail. A courtesy copy shall be provided to the CO upon submission to the GSA Office of Finance. The preferred means of submitting invoices is by electronic invoicing through the GSA web site. For further information regarding electronic invoicing, please contact the GSA Fort Worth Finance Center Customer Support Group at (817) 978-2408.

The mailing address for GSA's Office of Finance for invoices is:

General Services Administration
Finance Division (7BCP)
P.O. Box 17181

Fort Worth, TX 76102-0181

G.6 SUSPENSION OF WORK

(a) Definitions—

Essential employees may be essential for conducting regular operations, and may even be required to report to work during hazardous weather conditions, but they are not necessarily excepted when those regular operations cease under a funding lapse.

Excepted employees must be performing specific functions allowed by law and defined in GSA Order ADM 4220.1F. Some functions would include protecting Federal lands, buildings, waterways, equipment, and other U.S. property, and supporting, providing services to, or otherwise enabling others to perform excepted functions.

(b) In the event services are not provided or required by the Government because the building(s) is/are closed due to inclement weather (not including essential personnel), under construction, unanticipated holidays declared by the President (see note), failure of the Congress to appropriate funds (not including excepted personnel or services per GSA Order ADM 4220.1F), etc., reductions will be computed as follows:

(1). The reduction rate in dollars per day will be equal to the per month contract price for the building(s), divided by the number of working days per month.

(2). The reduction rate in dollars per day multiplied by the number of days services were not provided or required. In the event services are provided for portions of day(s), appropriate adjustments will be made by the CO to assure the Contractor is compensated for services provided.

Note: Deductions will not be assessed for service requirements on those days in which services are not required by the Government because the building(s) is/are closed due to an unanticipated Federal Holiday declared by the President, **IF** contractor employees are paid for such day(s) off in accordance with the applicable wage determination and/or collective bargaining agreement.

In the event services are not provided or required by the Government because the building(s) is closed due to inclement weather, under construction, unanticipated holidays declared by the President, failure of the Congress to appropriate funds, etc., reductions will be computed as follows:

A. The reduction rate in dollars per day will be equal to the per month contract price for the building(s), divided by the number of working days per month.

B. The reduction rate in dollars per day multiplied by the number of days services were not provided or required. In the event services are provided for portions of days, appropriate adjustments will be made by the CO to assure the Contractor is compensated for services provided.

G.7 EVALUATING CONTRACTOR PERFORMANCE

Past performance information is relevant information, for future source selection purposes, regarding a contractor's actions under a previously awarded contracts. It includes, for example, the contractor's record of conforming to contract requirements and to standards of good workmanship, the contractor's record of forecasting and controlling costs, the contractor's adherence to contract schedules, including the administrative aspects of performance, the contractor's history of reasonable and cooperative behavior and commitment to customer satisfaction, the contractor's reporting into databases, the contractor's record of integrity and business ethics, and generally, the contractor's business-like concern for the interest of the customer.

The General Services Administration (GSA), Public Buildings Service (PBS), will begin using the Contractor Performance Assessment Reporting System (CPARS) modules as the secure, confidential, information management tool to facilitate the performance evaluation process: http://www.cpars.csd.disa.mil/. CPARS enables a comprehensive evaluation by capturing comments from both GSA and the contractor.

GSA PBS will evaluate interim contractor performance on an annual basis and final contractor performance upon contract completion. Evaluations of contractor performance will be provided to the contractor as soon as practicable after completion of the evaluation. Contractors will be given a minimum of 30 days to submit comments, rebutting statements, or additional information. GSA PBS will provide for review at a level above the contracting officer to consider disagreements between the parties regarding the evaluation. The ultimate conclusion on the performance evaluation is a decision of the contracting agency. Copies of the evaluation, contractor response, and review comments, if any, shall be retained as part of the evaluation. These evaluations may be used to support future award decisions, and should therefore be marked "Source Selection Information."

The GSA PBS Contracting Officer will use the past performance point of contact listed on the contractors Central Contractor Registration (CCR) profile as the default past performance POC. This is the person that will receive CPARS email alerts.

Copies of the evaluations, contractor responses, and review comments, if any, will be retained as part of the contract file, and may be used by Federal Agencies to support future award decisions.

G.8. CRITERIA FOR DEDUCTIONS

G.8.1. General

It is the objective of the Government to obtain complete and satisfactory performance in accordance with the terms of the specifications and requirements in this contract. To this end, the Government is contracting for the complete performance of each task identified in the specifications. In the event that inadequate performance or nonperformance of a task occurs, the Government will make the determination to either

A. Reduce the monthly payment as stipulated in the Criteria for Deductions (paragraph G.8.4) or

B. Withhold payment until performance is acceptable or

C. Have the work performed by other means.

Should the Government have the work performed by other means; a deduction will be taken in the amount of the actual cost to the Government for having the work performed by other means. A monetary reduction to the contract price for nonperformance of work under this contract, or for deficiencies in the performance of work, and administrative costs for time and material costs incurred by Government personnel to correct or respond to the unsatisfactory event, will be taken. Inadequate performance is just as undesirable as nonperformance, and the cost of correcting inadequate performance may equal or exceed the cost of initial performance. Therefore, the deduction criteria in this Section shall control in all cases, as distinguished from the Contractor's estimated cost to perform the work.

G.8.2. Withholding Monies for Non-Submission of Reports
If the contractor fails to prepare and/or submit acceptable reports (within the required time frame) as required in this contract, this may be construed to mean that the contract work has not been performed and the Government will withhold all payments until the required reports are satisfactorily completed and/or submitted to the COR.

G.8.3. Withholding Monies for Failure to Maintain and/or Provide Parts
If the Contractor fails to provide the parts specified in this contract, **within 24 hours** of establishment of the need for such parts, the Government will withhold all payments until the required parts are provided and are satisfactory to the COR.

G.8.4 Criteria for Deductions

CRITERIA FOR MECHANICAL DEDUCTIONS

CAUSE OF DEDUCTION	CALCULATION OF DEDUCTION
1. Failure of the Contractor to have adequate qualified personnel on-site as specified in Contractor's accepted technical proposal or CO approved revision.	1. **$*** per man hour will be deducted for each hour, or portion thereof, that the Contractor fails to have adequate qualified personnel on-site. The man hour calculation shall be based on total number of personnel proposed minus the total number of personnel provided, this sum multiplied by the number of hours that full staffing was not provided.
2. Failure to provide prescribed environmental conditions in the building(s), or portion thereof, at all times.	2. The Contractor will be held liable for all costs, including administrative costs, incurred by the Government as a result of his/her failure to provide prescribed environmental conditions at all times.
3. Failure to perform, or satisfactorily perform, PM, tours, or watches required by the contract during the time period in which performance was scheduled.	3. The man-hours required to perform the omitted or unsatisfactory work will be determined by the COR, based on the standards in GSA's Buildings Maintenance Management Desk Guide. The total man hours required will be multiplied by **$*** to determine the total dollar amount deductible for the scheduled work, plus administrative cost.
4. Failure to complete repairs of building equipment which the cost of supplies, materials, and parts is $2,500 or less, within the 120 hour time limit or approved extension thereof.	4. Beginning with the first hour following the expiration of the 120 hour time limit or within 10 days respectively, or an approved extension thereof, **$*** will be deducted for every hour or portion thereof for every day that the repair remains incomplete, in

	addition to any costs incurred by the Government to complete the repair.
5. Failure to respond to and complete service calls within the prescribed time limits; or extension thereof.	5. Deductions will be made as follows for failure to complete service calls: a. For those requiring immediate action, the Contractor will be held liable for all costs, including administrative costs, incurred by the Government, to complete the service call. b. For all other service calls, beginning with the first hour following expiration of the appropriate time limit for completion (urgent: remain on job until work has been completed, routine: complete work within 120 hours of notification), **$*** per hour will be deducted for every hour, or portion thereof, that the service call remains incomplete (based on the number of hours per day that the Contractor is required to be on-site, 250 day-per-year basis), including administrative costs.
6. Failure to respond within one (1) hour to a request for Emergency Call-Back Service, and/or failure to provide the required service.	6. The Contractor will be held liable for all costs incurred by the Government as a result of the Contractor's failure to respond within one (1) hour and/or provide the required service, including but not limited to: a. All costs to repair damage to the building, equipment, or systems, and; b. All costs associated with responding to the emergency, and; c. All administrative costs.
7. Failure to respond to a request for Overtime Services, and/or failure to provide the required services.	7. The Contractor will be held liable for all costs, including administrative costs, incurred by the Government as a result of the Contractor's failure to respond to, and/or provide, requested overtime services.
8. Failure to: a. Properly operate and/or maintain equipment and/or systems or, b. Make repairs, which results in damage to the building(s), equipment, or systems.	8. The Contractor will be held liable for all costs, including administrative costs, incurred by the Government to repair damage to the building, equipment, or systems which results from the Contractor's failure to perform any or all of the items listed as (a) or (b) adjoining.
9. Failure to perform the miscellaneous hours specified in paragraph C.40.4, when requested	9. **$*** will be deducted for each hour or portion thereof that the miscellaneous services are not provided when requested by the COR or his/her designated representative.
10. Failure to make inspections as outlined by the approved Quality Control Plan that accurately re-	10. The Contractor shall be liable for all costs associated with the Government re-inspection of deficien-

flects the true conditions of the equipment.	cies found by the Government. This applies to items that were to be inspected by the Contractor's Quality Control Plan.
11. Failure of the Contractor to complete required training, submit required documentation, reports, plans, schedules, etc., within the specified time frame.	11. All moneys due the Contractor will be withheld until required training, documentation, reports, plans, schedules, etc., are submitted to and approved by the COR.
12. Failure to provide adequate personnel to perform fire watches duties when required.	12. The total man-hours required will be multiplied by **$*** to determine the total dollar amount deductible for the services not provided, plus administrative costs.

CONTRACT PERIOD	*** MECHANICAL LABOR RATE**
INITIAL PERIOD:	$44.61 PER PRODUCTIVE HOUR
OPTION I:	$46.39 PER PRODUCTIVE HOUR
OPTION II:	$48.25 PER PRODUCTIVE HOUR
OPTION III:	$50.18 PER PRODUCTIVE HOUR
OPTION IV	$51.69 PER PRODUCTIVE HOUR
OPTION V	$53.24 PER PRODUCTIVE HOUR
OPTION VI	$54.84 PER PRODUCTIVE HOUR
OPTION VII	$56.49 PER PRODUCTIVE HOUR
OPTION VIII	$58.18 PER PRODUCTIVE HOUR
OPTION IX	$59.93 PER PRODUCTIVE HOUR

H. SPECIAL CONTRACT REQUIREMENTS

H.1. Security

H.1.1 Security Requirements and Personal Identity Verification Procedures (Non-Classified Contract)

FAR 52.204-9 PERSONAL IDENTITY VERIFICATION OF CONTRACTOR PERSONNEL (SEPT 2007)

a. The Contractor shall comply with Agency personal identity verification procedures identified in the Contract that implement Homeland Security Presidential Directive-12 (HSPD-12), Office of Management and Budget (OMB) guidance M-05-24 and Federal Information Processing Standards Publication (FIPS PUB) Number 201.

b. The Contractor shall insert this clause in all subcontracts when the subcontractor is required to have routine physical access to a Federally-controlled facility and/or routine access to a Federally-controlled information system.

H.1.2 GSAR 552.237-70 Qualification of Offerors (MAY 1989)

a. Offers will be considered only from responsible organizations or individuals now or recently engaged in the performance of building service Contracts comparable to those described in this solicitation. In order to determine an Offeror's qualifications, the Offeror may be requested to furnish a narrative statement listing comparable Contracts which it has performed; a general history of its operating organization; and its complete experience. An Offeror may also be required to furnish a statement of its financial resources; show that it has the ability to maintain a staff of regular employees adequate to ensure continuous performance of the work; and, demonstrate that its equipment and/or plant capacity for the work contemplated is sufficient, adequate, and suitable.

b. Competency in performing comparable building service Contracts, demonstration of acceptable financial resources, personnel staffing, plant, equipment, and supply sources will be considered in determining whether an Offeror is responsible.

c. Prospective Offerors are advised that in evaluating these areas involving any small business concern(s), any negative determinations are subject to the Certificate of Competency procedures set forth in the Federal Acquisition Regulation.

H.1.3. GSAR 552.237-71 Qualifications of Employees (MAY 1989)

a. The Contracting officer or a designated representative may require the Contractor to remove any employee(s) from GSA controlled buildings or other real property should it be determined that the individual(s) are either unsuitable for security reasons or otherwise unfit to work on GSA controlled property.

b. The Contractor shall fill out and cause each of its employees performing work on the Contract work to fill out, for submission to the Government, such forms as may be necessary for security or other reasons. These forms shall be completed electronically unless that would create a hardship for the individual. Upon request of the Contracting Officer, the Contractor and its employees shall be fingerprinted.

c. Each employee of the Contractor shall be a citizen of the United States of America, or an alien who has been lawfully admitted for permanent residence as evidenced by Alien

Registration Receipt Card Form I-151, or, who presents other evidence from the Immigration and Naturalization Service that employment will not affect his immigration status.

H.1.4. Suitability Determinations

a. All Contract employees requiring routine unescorted access to Federally-controlled facilities and/or information systems for more than 6 months (Regular Employees) will be required to undergo a suitability determination before a facility identification card is issued. Prior to the time that an identification card is issued, such Regular Employees will be required to comply with normal facility access control procedures, including sign-in, temporary badging, and escorted entry, as applicable.

b. Failure of a Regular Employee to receive a favorable suitability determination shall be cause for removal of the employee from the work site and from other work in connection with the Contract.

c. Contract employees working less than 6 months (Temporary Employees) may, at the Government's option, be required to undergo a lesser form of suitability determination. Prior to the time that an identification card is issued, if at all, such Temporary Employees will be required to comply with normal facility access control procedures, including sign-in, temporary badge, and escorted entry, as applicable.

d. Temporary Employees who have not received a favorable suitability determination shall be escorted by government employees at all times while in non-public space, as directed by the CO or their designee.

e. The Government, at its sole discretion, may grant temporary suitability determinations to Regular or Temporary Employees. However, the granting of a temporary suitability determination to any such employee shall not be considered as assurance that a favorable suitability determination will follow.

f. The CO or their designee shall provide the Contractor with required forms for obtaining necessary clearances. The Contractor shall be required to cause such forms to be returned to the Government for processing not later than 14 days following being provided by the Government.

g. The Contractor shall be responsible for planning and scheduling its work in such a manner as to account for facility access issues. Difficulties encountered by the Contractor in gaining access to facilities by its employees and subcontractors shall not be an excuse to any Contractor performance under the Contract.

H.1.5. Compliance with Security Requirements

a. The Contractor shall comply with all GSA and tenant Agency security requirements in the building(s) where work is being performed.

b. When a controlled personnel identification access system is used by a tenant Agency at a site where work is performed, the tenant Agency will be responsible for providing any required access credentials. Credentials shall be displayed at all times or as otherwise required by the tenant Agency.

The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity and shall be responsible for taking such disciplinary action with respect to its employees as may be necessary.

H.2. Identification Credential

a. Upon receipt of favorable suitability determination as indicated in this document, each employee of the Contractor will be issued an identification credential. At all times while working on the Contract, a Contract employee, including subcontractor employees, shall have in his or her possession the specific Government identification credential issued to him or her by the Government. The identification credential shall be displayed and be visible at all times while on Government property. The CO or designee, Government law enforcement, or security person shall periodically verify passes of Contractor employees with their personnel identification. Contractor employees shall comply with security verification procedures at all times.

b. The Contractor shall ensure that every Contract employee has a Government issued identification credential before the employee enters on duty. As required by the Government, the Contractor shall make his employees available for photo identification badges, on a schedule to be worked out with the CO or designee. The Government will make the identification credentials after a favorable security determination has been received for the Contractor's employees. Each identification credential shall have an expiration date and Contractor employees shall sign each badge at the time of photographing.

c. The Contractor shall be responsible for ensuring that all identification credentials are returned to the CO or their designee whenever his employees leave the Contract (when the Contract has been completed, employees leave the company, or employees are dismissed or terminated). The Contractor shall notify the CO or their designee whenever employee badges are lost.

d. The Contractor will be responsible for paying the Government for replacement credentials at the current cost per badge.

H.3. Escort Requirements

It may be necessary to escort temporary Contract employees who do not have favorable preliminary or final suitability determinations and shall work in federally controlled space. In those cases, all uncleared Contract employees shall be escorted in nonpublic space by a Government employee or another responsible cleared Contract employee who is approved by the CO or designee. Other Government agencies may have specific Agency security requirements for their own space that may only allow escort by Government employees or those designated by their Agency. Government employees or approved cleared Contract employees who provide escorts for uncleared Contract employees shall always be in close proximity and within eyesight of the uncleared Contract employee. The Contract government escort shall watch uncleared employees and remain with uncleared Contract employees for the entire time they are in the building and or federally controlled space. Uncleared employees cannot be left alone or out of eyesight at anytime they are in nonpublic space. A cleared and approved escort may not allow several uncleared Contract employees to be in Federally controlled space, that is not within close

proximity and within eyesight at all times. A cleared and approved escort may not allow multiple uncleared employees in non-public space on different parts of one floor or different floors at the same time. Any security violation of escort requirements by a cleared and approved Contract employee will result in the immediate removal from the Contract of all Contract employees involved, i.e., escorts and uncleared escorted Contract employees. Also, violations of escort requirements by Contract employees in accordance with security requirements may be grounds for termination of the Contract.

H.4. Standards of Conduct

The Contractor shall be responsible for maintaining satisfactory standards of employee competency, conduct, appearance, and integrity and shall be responsible for taking disciplinary action with respect to his employees as necessary. The Contractor is responsible for ensuring that his employees do not disturb papers on desks, open desk drawers or cabinets, or use Government telephones, except as authorized. Each employee is expected to adhere to standards of behavior that reflect favorably on his or her employer and the Federal Government. No smoking is allowed in the building.

H.5. Removal from Contract Work

a. As provided in the clause entitled "Qualifications of Employees," the Contracting officer or a designated representative may require the Contractor to remove any employee(s) from GSA controlled buildings or other real property should it be determined that the individual(s) is either unsuitable for security reasons or otherwise unfit to work on GSA controlled property. This shall include, but not be limited to, instances where an employee is determined, in the Government's sole discretion, to be incompetent, careless, insubordinate, unsuitable, or otherwise objectionable.

b. When the Government deems the employee's continued employment to be contrary to the public interest, inconsistent with the best interests of security, or when the employee is identified as a potential threat to the health, safety, security, general well-being, or operational mission of the facility and its population.

c. The CO may also request the Contractor to immediately remove any employee from the work site if it is determined that individuals are being assigned to duty who have been disqualified for either suitability or security reasons or who are found to be unfit for performing duties during their tour of duty.

d. Contractor employees who are removed from Contract work shall be required to leave the work site immediately.

e. The Contractor shall comply with any removal request. For clarification, a determination to remove an employee will be made for, but is not limited to, incidents involving the most immediately identifiable types of misconduct or delinquency as set forth below:

    1. Failure to receive a suitability determination, temporary clearance, or clearance from GSA or a tenant Agency.

    2. Violation of Federal, State, or Local law.

3. Violation of the Rules and Regulations Governing Public Buildings and Grounds, 41 CFR 101-20.3. This includes the carrying or possession of explosives or items intended to be used to fabricate an explosive or incendiary device.
4. Neglect of duty, including sleeping while on duty, unreasonable delays, or failure to carry out assigned tasks, conducting personal affairs during official time or refusing to render assistance, or to cooperate in upholding the integrity of the security program at the work site.
5. Falsification or unlawful concealment, removal, mutilation, or destruction of any official documents or records, or concealment of material facts by willful omissions from official documents or records.
6. Disorderly conduct, use of abusive or offensive language, quarreling, intimidation by words or actions, fighting, or participation in disruptive activities that interfere with the normal efficient operations of the Government.
7. Theft, vandalism, immoral conduct, or any other criminal actions.
8. Selling, consuming, or being under the influence of intoxicants, drugs, or substances that produce similar effects while in or on federally controlled property.
9. Improper use of Government identification.
10. Unauthorized use of communication equipment on Government property.
11. Violation of security procedures or regulations.
12. Violation of Title 18,U.S.C.,Section 930, which prohibits the knowing possession or the causing to be present of firearms or other dangerous weapons in Federal facilities and Court facilities.

f. The CO or their designee will make all determinations regarding the removal of any employee from work site, except under certain conditions. When a CO or their designee is not available, either during the day or after hours, or in situations where a delay would not be in the best interest of the Government or is identified as a potential threat to the health, safety, security, general well-being, or operational mission of the facility and its population, the CO or their designee will have the authority to immediately remove the Contract employee from the work site.

g. Law enforcement officers of the Department of Homeland Security/Immigration and Customs Enforcement/Federal Protective Service (DHS/ICE/FPS) will have the authority to immediately remove any Contract employee from the work site who is found to be in violation of any of the items mentioned above and where a delay in removal would not be in the best interest of the Government or security or is identified as a potential threat to the health, safety, security, general well-being, or operational mission of the facility and its population. The CO or their designee will be notified as soon after the incident as practical or at the beginning of the next business day if an action happened after hours. The CO or their designee will make all official notifications to the Contractor. In the event of a dispute, the CO or their designee will make a final determination. Specific reasons for removal of an employee will be provided to the Contractor in writing by the CO or designee.

h. The Contractor is responsible for providing replacement employees in cases where Contract employees are removed from working at the work site or on the Contract.

H.6. Sensitive but Unclassified (SBU) Building Information

a. GSA Contractors that do not have HSPD-12 compliant clearances cannot obtain Sensitive but Unclassified (SBU) information (Privacy Act data, building information, and financial information) through GSA's IT systems.

b. Contractors and prospective bidders with a need to know that do not have HSPD-12 clearances and access rights to GSA IT systems can be provided SBU building information, drawings, etc., in accordance with GSA Order 3490.1A, which provides for the dissemination of paper and electronic SBU building information for all Federally controlled space (owned, leased, and delegated).

c. SBU information includes, but is not limited to:

    1) Paper and or electronic documentation of the physical facility information.
    2) Building designs (such as floor plans).
    3) Construction and renovation or alteration plans and specifications.
    4) Equipment plans and locations.
    5) Building operating plans.
    6) Information used for building service Contracts and or Contract guard services.

d. For all GSA controlled facilities, any other information considered a security risk shall be considered covered under this category.

e. All SBU building information, either in electronic or paper format, shall have specific imprinting on each page to designate it as Government property and indicate the prohibition of copying, dissemination, and distribution.

f. Contractors authorized to receive SBU information shall provide the following identification:

    1) A copy of a valid business license.
    2) Verification of a valid DUNS Number.
    3) A valid IRS Tax ID Number.
    4) A valid State driver's license with photograph.

g. Contractors shall sign a Document Security Notice when they receive SBU information.

h. Contractors shall be responsible for safeguarding SBU information. At the completion of work, secondary and other Disseminators shall be required to turn over their Document Security Notice dissemination records to GSA to be kept with the permanent files.

i. Authorized Contract users shall destroy all SBU information and documents when no longer needed. Destruction shall be done by burning or shredding hardcopy, and or physically destroying CDs, deleting and removing files from the electronic recycling bins, and removing material from computer hard drives using a permanent erase utility or similar software.

j. All authorized Contract users of SBU building information shall notify the GSA Disseminator in writing that they have properly disposed of the SBU building information and documents.

k. The GSA Disseminator shall maintain all records of SBU building information disposal (along with the signed Document Security Notices) in accordance with the GSA system of keeping long-term records and plans. All Document Security Notices and Records of Disposal shall be kept with the permanent files.

H.7. Recording Presence

Each Contract employee shall sign in when reporting for duty and sign out when leaving at the end of the workday and follow card access requirements as directed by the CO or designee. The Contractor shall accumulate GSA Form 139 (Record of Time of Arrival and Departure from Building) or other designated form for use in recording presence each calendar week, certify in writing on each form that the information shown is true and correct and, and turn them over to the CO or designee when requested.

H.8. Government Forms

The various Government forms mentioned in this document such as personal history forms, sign-out forms, inspection forms, etc., may be obtained from the CO or designee.

H.9. Other Contractors

The Government may undertake or award other Contracts for additional work, and the Contractor shall fully cooperate with such other Contractors or Government employees. The Contractor shall carefully schedule his own work, in conjunction with the additional work, as may be directed by the CO or designee. In addition, the Contractor shall not commit or permit any act that will interfere with the performance of work by another Contractor or by Government employees.

H.10. Ordinances, Taxes, Permits, and Licenses

Without additional expense to the Government, the Contractor shall fully comply with all Local, City, State, and Federal laws, regulations, and ordinances. The Contractor will also be liable for all applicable Federal, State, and Local taxes and shall obtain and pay for all permits and licenses governing performance under the Contract.

H.11. Discrepancy in the Specifications

In any case of discrepancy in the specifications, the matter shall be immediately submitted to the CO. The decision of the CO as to the proper interpretation of the specifications shall be final in accordance with the Disputes Clause of this Contract.

H. 12. Affirmative Procurement Program (APP)

H.12.1 Standards

The Contractor shall use safe and environmentally friendly products as referenced throughout this specification. Green products and processes include, but are not limited to bio-based products, products containing recycled content, environmentally preferable products and services, and otherwise environmentally friendly products and services that minimize the use of energy, water, and other resources. Chemical concentrates that require dilutions are preferable compared to ready-to-use products and should be used whenever possible. Dilution control equipment should be employed to ensure correct dilutions of concentrates and to protect workers from exposure to concentrated chemicals.

Products designated under federal sustainable product programs – USDA Bio Preferred, EPA CPG, EPA Design for the Environment, Eco Logo and Department of Energy's Energy Star and FEMP - can be found on www.sftool.gov. Sustainable products designated under third-party programs include but are not limited to Green Seal™ and Environmental Choice. For those categories of product not recognized by one of the aforementioned standard's, preference shall be given to products meeting the California Code of Regulations maximum allowable Volatile Organic Compounds (VOC) levels for the appropriate cleaning product category(California Air Resource Board/California Code of Regulations (CCR), Tile 17 CCR Section 94509 – (Topic cited; Standards for consumer products at www.calregs.com).

Products including, but not limited to, cleaners, adhesives, sealants, solvents, and replacement fixtures and equipment - if applicable, must meet the sustainability standards for products listed in the Green Products Compilation (sftool.gov) see Exhibit 4. With the exceptions listed below. The Green Products Compilation lists all of the products that Federal agencies are required by statute to purchase green:

a. Green Seal standard GS-34 shall apply to degreasers
b. Green Products Compilation (sftool.gov) shall apply to industrial and institutional cleaning products [this covers concentrate issue]. The California Code of Regulations maximum allowable VOC levels for the appropriate product category (California Air Resource Board/California Code of Regulations (CCR), Tile 17 CCR Section 94509 – (Topic cited; Standards for consumer products at www.calregs.com).

H.12.2 Reporting

Contractor shall track the following green purchasing elements and report on purchases as specified in the environmental reporting section and Exhibit 2 of this specification.

H.12.3 Recycle Content Certification

In accordance with the FAR 52.223-9, Certification and Estimate of Percentage of Recovered Material Content for EPA-Designated Items purchased for the performance of work with this Contract, the Contractor shall provide to the CO or their designee the required certification and estimate at Contract completion.

H.13. Asbestos Awareness Training

The Contractor shall ensure that all employees, including replacement workers, receive asbestos training and refresher training in accordance with CFR 40-763 and 29 CFR 1910. The Contractor shall follow all instructions for each asbestos class job as outlined in 29 CFR 1910. The training shall be conducted, at no additional expense to the Government, at least 60 calendar days after the

start date of the Contract. The Contractor shall submit written certification to the CO or their designee within 5 days of the completion of training.

H.14. Uniforms

All trade workers shall wear a uniform with the Contractor's logo while working within the building.

H.15. Personnel Qualifications

H.15.1 Personnel Training

The Contractor shall establish training program to assure employees working in a Federal building have the knowledge, skills and abilities to perform the work required by this Contract. The Contractor shall provide training and/or document training that conforms to the core competencies of the Federal Buildings Personnel Training Act of 2010 and provide documentation to the CO or designee.

H.15.1.1 Re-Tuning Training

The Contractor must ensure that all Mechanical Engineers, Mechanical Supervisors, Operating Engineers, HVAC Mechanics, and Control Technician employees, including replacement workers, receive Building Re-Tuning Training, (http://retuningtraining.labworks.org/training/lms/), a 5-6 hour on line course and refresher training every two years in accordance with the Federal Buildings Personnel Training Act of 2010. The training must be conducted, at least 60 calendar days after the start date of the Contract. The Contractor must submit written certification to the CO or their designee within 5 days of the completion of training for each employee identified above.

H.15.1.2 Smart and Sustainable Buildings (SSB) Training

Mandatory Training (at least one staff member):

- One-hour "GSA Smart and Sustainable Buildings (SSB) Overview"
    - Module 1 - Includes GSA FMSP Smart and Sustainable Buildings Overview
    - Module 2 - Includes PBS CIO Support Procedures

Optional Training (Recommended for more in depth proficiency):
Penn State GSA Smart Buildings Course (http://smartenergyacademy.org/gridstar/)

H.15.2 Qualifications of Project Manager and Onsite Supervisory Personnel

H.15.2.1 Qualifications of Project Manager

The Project Manager shall possess at a minimum at least 5 years of recent (within the past 7 years) experience in the management and supervision of building mechanical maintenance operations for buildings of the approximate size and characteristics of the buildings to be covered by this Contract. A detailed resume containing the information specified in this document shall be submitted to the CO or their designee for approval prior to the assignment of the project manager to the Contract. Both new and replacement project manager's shall meet these qualification standards. Minimally, the resume shall contain:

a. The full name of the proposed project manager.
b. A detailed description of the previous 7 years' employment history of the proposed project manager.
c. The names and addresses of the companies for whom the proposed project manager worked for the past 7 years, along with the names and telephone numbers of the immediate supervisors.

H.15.2.2 Qualifications of Onsite Supervisor

The Onsite Supervisor shall also possess at least 5 years of recent (within the past 7 years) experience in directing operation and maintenance of equipment in a supervisory capacity for equipment of the approximate size, complexity, and other characteristics of the equipment to be operated and maintained under this Contract. A detailed resume containing the information specified in this document shall be submitted to the CO or their designee for approval prior to the assignment of any supervisor to the Contract. Both new and replacement onsite supervisors shall meet these qualification standards. Minimally the resume shall contain:

a. The full name of the proposed supervisor.
b. A detailed description of the previous 7 years' employment history of the proposed supervisor.
c. The names and addresses of the companies for whom the proposed supervisor worked for the past 7 years, along with the names and telephone numbers of the immediate supervisors.

H.15.3 Qualifications of Technicians

General Requirements

Technicians engaged in the work to be accomplished under this contract, except for general maintenance workers and laborers, must possess at least 5 years of recent (within the past 7 years) experience in the operation and maintenance of equipment and systems comparable in complexity to systems covered by this contract. All personnel or sub-contractor personnel must possess all required registrations, certifications and licenses required by State and local jurisdictions, and any specific requirements noted below. The Contractor shall provide to the CO or their designee documentation of the certificates of training, licenses, and permits for all new employees not later than 7 days prior to that person beginning work under the terms of this contract. The Contractor shall ensure that all certificates of training, licenses, permits, and bonds are current and valid. All offers must include documentation and proof of any required certifications (e.g., including certification number and expiration date) and qualifications for each employee.

H.15.3.1 Qualifications of Fire Alarm System Technicians

a. Technicians performing contract work involving the inspection, testing, and preventive maintenance or repair of fire alarm systems shall be certified by the National Institute for Certification in Engineering Technologies (NICET) and possess at least a NICET Level 2 (Associate Engineering Technician) in Fire Protection Engineering Technology, Fire Alarm Systems. The Contractor shall submit to the CO or their designee the NICET level certification number and expiration date for each field technician and inspector responsible for performing fire alarm system preventative maintenance and repair services required under the terms of this contract.

b. Technicians modifying the programming software of the fire alarm system shall also be factory trained and certified by the system manufacturer for the specific type and brand of fire alarm system being serviced. The Contractor shall submit to the CO or their designee the factory trained certification number and expiration date for each specific manufacturer's equipment for each technician responsible for performing programming of the fire alarm system.

H.15.3.2 Qualifications of Water-Based Fire Suppression System Technicians

Technicians performing contract work involving the inspection, testing, and preventive maintenance or repair of water-based fire suppression systems shall be certified by the National Institute for Certification in Engineering Technologies (NICET) and possess at least a NICET Level 2 (Associate Engineering Technician) in Fire Protection Engineering Technology, Inspection, and Testing of Water-Based Systems. The Contractor shall submit to the CO or their designee the NICET level certification number and expiration date for each field technician and inspector responsible for performing water-based fire suppression system preventative maintenance and repair services required under the terms of this contract.

H.15.3.3 Qualifications of Dry Chemical and Wet Chemical Extinguishing System Technicians

Technicians performing contract work involving the inspection, testing, and preventive maintenance of dry chemical and wet chemical extinguishing systems shall be trained in the manufacturer requirements and have passed a test confirming the individual's knowledge and competence on these systems. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the manufacture or testing organization confirming the technician has been trained and passed a test, for each field technician and inspector responsible for performing dry chemical and wet chemical extinguishing system preventative maintenance and repair services required under the terms of this contract.

H.15.3.4 Qualifications of Clean Agent Fire Extinguisher System Technicians

Technicians performing contract work involving the inspection, testing, and maintenance of clean agent fire extinguisher systems shall be trained in all aspects of safety related to the systems and possess a current training certificate for inspecting, testing, and maintaining these components from a manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of clean agent fire extinguisher systems required under the terms of this contract.

H.15.3.5 Qualifications of Halogenated Extinguishing System Technicians

Technicians performing contract work involving the inspection, testing, maintenance, decommissioning and removal of halogenated extinguishing systems shall be trained in all aspects of safety related to halon systems and possess a current training certificate for inspecting, testing, and maintaining these components from a manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, maintenance, decommissioning and removal of halogenated extinguishing systems required under the terms of this contract.

H.15.3.6 Qualifications of Carbon Dioxide Extinguishing System Technicians
Technicians performing contract work involving the inspection, testing, maintenance of carbon dioxide extinguishing systems shall be trained all aspects of safety related to carbon dioxide extinguishing systems, the operation and functions performed, and possess a current training certificate for inspecting, testing, and maintaining these components from an equipment manufacturer, installation company, or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the equipment manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of carbon dioxide extinguishing systems required under the terms of this contract.

H.15.3.7 Qualifications of Ventilation System Fire Extinguishing System Technicians
Technicians performing contract work involving the inspection, testing, maintenance of fire extinguishing systems shall be trained and possess a current training certificate for inspecting, testing, and maintaining ventilation systems from an equipment manufacturer. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the equipment manufacture confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of fire extinguishing systems required under the terms of this contract.

H.15.3.8 Qualifications of Smoke Control Technicians
Technicians performing contract work involving the inspection, testing, and maintenance of smoke control systems shall be trained and possess a current training certificate for inspecting, testing, and maintaining these components from a manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of smoke control systems required under the terms of this contract.

H. 15.3.9 Qualification of Fire Damper, Smoke Damper, and Combination Fire/Smoke Damper Technicians
Technicians performing contract work involving the inspection, testing, and maintenance of fire dampers, smoke dampers, radiation dampers, and combination fire/smoke dampers shall be trained and possess a current training certificate for inspecting, testing, and maintaining these components from an equipment manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the equipment manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of fire dampers, smoke dampers, radiation dampers, and combination fire/smoke dampers required under the terms of this contract.

H.15.3.10 Qualifications of Fire-rated and Smoke Door Assemblies Technicians
Technicians performing contract work involving the inspection, testing, and maintenance of fire-rated door assemblies and smoke door assemblies shall be trained and possess a current training certificate for inspecting, testing, and maintaining these components from an

equipment manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee he certification document and expiration date, issued by the equipment manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of fire-rated door assemblies and smoke door assemblies required under the terms of this contract.

H.15.3.11 Qualifications of Portable Fire Extinguisher Technicians

Technicians performing contract work involving the preventive maintenance and recharging of portable fire extinguishers shall be trained and possess a current training certificate for the specific type and brand of portable fire extinguisher being services or possess a current training test certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the manufacture or testing organization confirming the technician has been trained and passed a test, for each field technician and inspector responsible for performing dry chemical and wet chemical extinguishing system preventative maintenance and repair services required under the terms of this contract. Please note that these requirements do not apply to persons performing 30-day (i.e., monthly) inspections to determine if the unit is in place, charged, and ready for use.

H.15.3.12 Qualification of Emergency and Standby Power System Technicians

Technicians performing contract work involving the inspection, testing, and maintenance of emergency and standby power systems shall be trained and possess a current training certificate for inspecting, testing, and maintaining these components from an equipment manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the equipment manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of emergency and standby power systems required under the terms of this contract.

H.15.3.13 Qualifications of Emergency Lighting Equipment and Exit Signage Technicians

Technicians performing contract work involving the inspection, testing, and maintenance of emergency lighting equipment and exit signage shall be trained and possess a current training certificate for inspecting, testing, and maintaining these components from an equipment manufacturer or a certificate by an organization acceptable to the CO. The Contractor shall submit to the CO or their designee the certification document and expiration date, issued by the equipment manufacture or testing organization confirming the technician has been trained, for each field technician and inspector responsible for performing the inspection, testing, and maintenance of emergency lighting equipment and exit signage required under the terms of this contract.

H.15.3.14 Qualifications of HVAC Technicians

All HVAC personnel designated to work on, operate, maintain, and (or) repair HVAC equipment or systems shall maintain a minimum of 16 hours of continuing education annually from a NATE, HVAC Excellence, or UA Star recognized provider program. All HVAC personnel designated to work on, operate, maintain, and (or) repair HVAC equipment or systems shall possess one or more of the following certifications:

a. North American Technician Excellence (N.A.T.E.) HVACR Service Technician Certification

b. HVAC Excellence Professional Level Certification
c. UA Star HVACR Mastery Certification

H.15.3.15 Qualifications of BAS Technicians

All Contract personnel involved in the operation, adjustment, and maintenance of all BAS systems including energy management systems, modern converged technologies (Smart and Sustainable Building Technologies) must be trained and qualified. The Contractor shall provide to the CO or their designee documentation of the level of experience, including any certificates of training, for all employees who will be involved in this function. This includes, but is not limited to, skill sets involving Internet Protocol (IP) based Building Automation Systems (BAS), Information Technology (IT) Ethernet networks, and Building Management expertise to effectively understand and recommend troubleshooting procedures in the new converged technologies environment.

Contractors shall hire well-rounded resources capable of understanding converged technologies to better facilitate troubleshooting and building systems problem resolution.

The Contractor shall be proficient in applicable controls systems (e.g. JCI, Honeywell, Siemens, Delta, Automated Logic, Alerton, and Tridium Niagra). The Contractor shall be aware of building systems running on GSA IP Enterprise Network and capable of initiating trouble shooting if network communications is suspect. This means being familiar with procedure for logging GSA IT Help Desk ticket and following up to ensure ticket is being worked by assigned party. Some familiarization with the use of Integrated Control systems, GSA IP Addresses, function of network routers, function of network switches, networks communications, and BAS software will be necessary.

All BAS Technicians shall be certified in the building-specific integrated system controls certification (i.e. Tridium Niagara, JCI/Metasys, Siemens Apogee, etc.). GSA's intent is to align the correct BAS technician certification for the BAS installed in the building. .One technician will be required to attend a one week controls training class once per year for each year of the contract. A typical training class of this nature cost approximately $2000 and another $2000 in travel costs. The Technician and the class must be approved by R7 FMSP Operations Branch prior to scheduling the trip. A copy of the certification of the class will be provided to R7 FMSP after the successful completion of the class. If the individual does not complete the class, the cost of the class itself will be reimbursed to the Federal Government.

Note: if the person who received the training leaves the contract within 12 months after completion of the training, then the contractor will be expected to reimburse the Government for the full cost of the course and the travel up to $4000. Or the contractor may submit another name and course to be approved by Regional FMSP office and send that person to the training at no additional cost to Government. The intent is to get the Contractor's staff trained in the proper use and operation of the BAS/Tridium system.

H.15.3.16 Qualifications of Electrical Technicians

Technicians performing Contract work involving the inspection, testing, and maintenance of the electrical switch gear must meet the qualification requirements of the American National Standards Institute/International Electrical Testing Association ETT-2000, Standard for Certification of Electrical Testing Technicians and hold at least a Level 3 or 4 (See Exhibit 13).

The Contractor shall provide documentation to the CO or their designee on qualifications identified in this standard. Certification can be obtained through; the ANSI/NETA Certification program (http://www.netaworld.org/press-release/251) or Electrical Testing Technician Certification Institute (http://www.ettci.org/).

H.15.4 Submission of Resumes for New Employees

The Contractor shall submit to the CO or their designee the resumes of all personnel before they begin work during the performance periods of the Contract. The CO or their designee may deny permission to employ personnel if qualifications indicate a material degradation from the skill levels indicated in the Contractor's proposal for the Contract, or if skills or reliability concerns are such that the CO or their designee believes the protection of building equipment may be jeopardized.

H.15.5 State Licensing

All personnel shall be licensed and certified, or become licensed and certified within 90 calendar days of beginning employment, to perform work within their normal duties, where such licensing is required by the State for non-Federal locations. Contractor personnel shall also conform to all other licensing and certification requirements as described elsewhere in this document or in the Public Buildings Service Operations and Maintenance Standards.

H.15.6 Compliance with Federal, State, and Local Codes

The Contractor shall comply with all applicable Federal, State and Local laws, regulations and codes. The Contractor is responsible for determining which requirements are applicable, and complying appropriately; the Contractor may ask advice of the CO or their designee in this regard. GSA also has a policy of voluntary conformity to certain State and Local code requirements even when permission or approvals from Local regulators are not required; the Contractor shall ask the advice of the CO or their designee when such issues arise.

H.16. Government-Furnished Materials

The following items are furnished by the Government:

a. Electrical power at existing outlets for the Contractor to operate equipment that is necessary in the conduct of its work.
b. Hot and cold water as necessary, limited to the normal supply provided in the building. No special heating or cooling of the water will be provided.
c. Space in the building, including locker rooms, if available. Any existing equipment within GSA space, such as lockers, tables, benches, chairs, etc., placed within the building by the Government may be used by the Contractor during the term of the Contract, provided authorization is received from the CO or designee. This space and equipment shall be kept neat and clean and returned to the Government at the expiration of the Contract in reasonably the same condition as at the time of entering into the Contract.
d. Space in the building for the storage of an inventory of supplies and equipment that will be used in the performance of work under the Contract. The Contractor shall maintain this space in a clean, neat, and orderly condition. Under no circumstances may the Contractor store flammable or explosive liquids (naphtha, gasoline, etc.) in the building. The Government will not be responsible in any way for damage or loss to the Contractor's stored supplies, materials, replacement parts, or equipment.
e. Space in the building, when available, and furniture and furnishings (to include telephones for restricted use) for a supervisor's office to be used for official business only in the performance of this Contract. If the Government supplies telephones, they shall only be

used for communication related to the Contract. The Contractor or the Contractor's employees shall not use Government property in any manner for any personal advantage, business gain, or other personal endeavor.

H.16.1 Requirements for Network Connection

Government-furnished network equipment and computer hardware must be used in all cases for PBS IT systems. Network equipment- includes any equipment that has IP routing and switching functionality.

- Computer hardware- includes, but is not limited to servers, PCs, laptops and their peripherals (monitors, mice and keyboards).
- Proprietary system hardware/software can be vendor provided, but is subject to network and system testing, review and approval for connection to GSA's network and acceptance of the PBS CIO.

Government Furnished Equipment - PBS CIO will make every effort to provide one desktop and/or one laptop to newly integrated Building Automation Systems (to the GSA network) sites for the purposes of giving new GSA users access to the building monitoring and control systems. Please note: availability of hardware is depending on the availability of budgeted funds dedicated for this purpose, which may or may not be renewed on an annual basis. Existing GSA workstation refreshes will still be coordinated through regional local OCIO's office. No hardware (workstations, servers, switches) will be provided unless an approved network diagram is submitted.

Use of Government Information Technology

Contractor personnel requiring access to GSA's Network shall comply with all Federal Information Technology (IT) regulations regarding Trusted Internet Connection (TIC) in conjunction with PBS and GSA Chief Information Officer (CIO) IT policies, i.e., all PBS IT systems needing network connectivity must reside on the GSA network.

Reference documentation related to building monitoring and control systems (BMC) -

Please reference the Technology Policy for PBS-Owned Buildings Monitoring and Control Systems and Building Technologies Technical Reference Guide for guidance related to the technical integration of building monitoring and control systems (BMC) to the GSA network and within its GSA's information technology (IT) environment.

H.17. Contractor-Furnished Materials

a. The Contractor shall provide all labor, services, supplies, material, and equipment necessary to efficiently and effectively perform the requirements of this Contract, except as explicitly stated within this document.
b. RESERVED

H.18. Additional Services Indefinite Quantity Provisions

H.18.1 General

The CO or their designee may order additional services at his or her discretion. Additional services may include any services related to O&M and repairs, systems upgrades, system operation, or tenant services within covered facilities but not covered within basic services (i.e., not already a requirement of the Contract).

H.18.2 Price Proposal for Additional Services Work
At the request of the CO or designee, the Contractor shall provide a price proposal to accomplish an additional services job within 48 hours of the request. The price proposal shall follow the pricing guidelines described in this document. Price proposals for additional services become firm fixed price on acceptance and order by the Government. Although price negotiation and determination of price reasonableness is made on the basis of labor, materials, and subcontract costs following the pricing guidelines described in this document, the price accepted is not adjusted after completion of work to actual man-hours or actual materials cost.

H.18.3 Pricing
The Contractor's price proposal for an Additional Services job shall follow the guidelines described below.

H.18.4 Parts and Materials
If parts or materials are required for a project, the Government may provide the parts or materials, or the Contractor may be asked to provide the parts and materials. Parts and materials shall be priced at estimated actual cost marked up by the standard coefficient in the price schedule.

H.18.5. Labor
If the contractor uses in-house labor resources during contractor employees' normal work hours no labor will be charged for additional services. If the work is being performed outside these hours the labor rate shall be the loaded wage rate (including health and welfare and any other fringe benefit) times 1.5 for overtime. If the work is subcontracted the cost proposal shall include labor hours, hourly rate, parts and materials listing with associated costs, and overhead and profit costs. Use of in-house contractor employees for overtime work must be approved by the COR in advance.

H.18.6 Subcontracts
If work is to be subcontracted, a cost proposal must be submitted to the CO. The cost proposal shall include the subcontractor's labor hours, hourly rate, a parts and materials listing with associated costs, and overhead and profit. The subcontracted part of the work is to be priced at actual cost to the Contractor, marked up by the standard coefficient in the price schedule on parts and materials only.

H.18.7 Cost Documentation
If the Contractor provides the parts and materials, or if work is subcontracted, the Contractor shall furnish on request copies of invoices, vendor quotes, or receipts, either with the Contractor's proposal or as substantiating documentation with the Contractor's invoice after completion of work.

H.18.8 Competitive Bids
If a single part or component, or a single type (line item) of parts, components, or materials for a project is anticipated to equal or exceed ***$2,500,*** the CO or their designee may require that the Contractor obtain three bids from suppliers and include documentation of these bids with his proposal.

H.18.9 Method of Ordering and Invoicing

The CO or their designee may order work priced at less than ***$2,500*** orally. The CO or their designee shall issue a Task Order (GSA Form 300) for work costing ***$2,500*** or more.

H.19. RESERVED

H.20. Strike Contingency Plan (SCP)

The Contractor shall prepare a Strike Contingency Plan (SCP) to be used in the event of a strike by his employees. The SCP shall be submitted to the CO or their designee 5 calendar days prior to Contract start date and updated annually. At a minimum, the SCP shall include the following information:

a. Support Personnel: The SCP shall describe in detail how the Contractor shall staff the building to provide the services defined in this document in the event of strikes by his employees. This includes HSPD-12.
b. License and Certifications: The SCP shall describe in detail how the Contractor will provide personnel that meet experience requirements, assuring the Government that all temporary or replacement employees (including subcontractor employees) shall meet the experience and license requirements defined in this document.

H.21. Occupancy Emergency Plan (OEP)

The Government's Occupant Emergency Plan (OEP) is used by the CO or their designee during building emergencies. Designated Contractor personnel, including, the onsite supervisors, shall be thoroughly familiar with the Government's OEP and shall be trained by the Contractor to fully understand their responsibilities relative to each emergency plan. The Contractor shall participate in fire and other emergency drills. The Contractor shall be required to perform the services required by the Contract and as identified by the CO or their designee to the extent allowed during all emergency situations, including, but not limited to fires, accident and rescue operations, Contractor personnel strikes, civil disturbances, natural disasters, and utility service outages.

H.22. Contractor Pandemic Plan

The Government is required by the National Strategy for Pandemic Influenza Preparedness and to have a plan that safeguards its employees and provides for continued operations in the event of an influenza pandemic. The Contractor shall also prepare a plan that outlines the steps that they must take to prevent and reduce the spread and mitigate the potential effect of an influenza pandemic on facilities operations. Given the unpredictable length and severity of a pandemic, the Contractor's plan shall link their planned actions to the periods and phases established the World Health Organization for a pandemic cycle. For information on the phases of a pandemic cycle see http://www.who.int/csr/disease/avian_influenza/phase/en/. The plan shall be submitted to the CO or his/her designee within thirty (30) calendar days of the start of the Contract. See components of Pandemic Planning at http://www.ed.gov/admins/lead/safety/emergencyplan/pandemic/planning-guide/basic.pdf

I. Contract Clauses

52.223-1 Bio-based Product Certification.
52.223-2 Affirmative Procurement of Bio-based Products Under Service and Construction Contracts.
52.223-3 Hazardous Material Identification and Material Safety Data
52.223-5 Pollution Prevention and Right-to-Know Information.
52.223-7 Notice of Radioactive Materials.
52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items.
52.223-10 Waste Reduction Program.
52.223-11 Ozone-Depleting Substances.
52.223-15 Energy Efficiency in Energy-Consuming Products.
52.223-17 Affirmative Procurement of EPA-designated Items in Service and Construction Contracts.
.

J. List of Attachments
(List of documents, Exhibits and Other Attachments)

WAGE ADJUSTMENT SPREADSHEET
See Attachment, Figure B-2, Union-Based Wage Adjustment Spreadsheet

CONTRACTOR STAFFING DECLARATION
See Attachment, FIGURE B-1, DOL Contractor Staffing Declaration

PRICING OF SERVICES
See Attachment, FIGURE B-3, Pricing for O & M Services

MANAGEMENT PLAN WORKSHEET
See Attachment, FIGURE L-1, Management Plan Worksheet

TIME STANDARD COMPARISON WORKSHEET
See attachment, Time Standard Comparison Legacy

ANNUAL MAN HOUR PREVENTIVE MAINTENANCE REQUIREMENTS WORKSHEET
See attachment, Annual Man Hour Preventive Maintenance Requirements Worksheet

COLLECTIVE BARGAINING AGREEMENT
See Attachment, CBA, EP IUOE 351 CBA effective Jan 1, 2014 thru Dec 31, 2017

GSA PREVENTIVE MAINTENCE GUIDE
See Attachment, Public Building Maint. Standards Final effective Oct 1, 2012

GSA/PBS PAST PERFORMANCE QUESTIONNAIRE
See Attachment, PBS Pat Performance Questionnaire effective Jul 2014

EXHIBIT 1

J.1. Quality Assurance Surveillance Plan (QASP)

CONTRACT No. G S -07 P -15 - JU-D-0021

Introduction

This Quality Assurance Surveillance Plan (QASP) is designed to provide the General Services Administration (GSA) with an effective surveillance method of monitoring and evaluating the Contractor's performance under a Performance-Based Statement of Work (PBSOW) for operation and maintenance services.

In accordance with Federal Acquisition Regulation (FAR) Part 37.601, performance-based Contracting methods are intended to ensure that the required performance quality levels are achieved and that the total payment is related to the degree that services performed or outcomes achieved meet Contract standards. GSA's role in quality assurance is to ensure that the Contractors are achieving the quality levels established in the operation and maintenance services Contracts and focuses on the Contractors' QCP. GSA periodically validates the execution of the Contractors' quality control programs by reviewing such areas as the Contractors' inspection forms, service request logs, tenant reports, tenant satisfaction surveys, and the timeliness of corrective actions.

A. PURPOSE OF THE QASP

The QASP is intended to accomplish the following:

- Define the roles and responsibilities of participating Government officials.
- Identify the performance objectives based upon the PBSOW in accordance with FAR Part 46.401(a) (1).
- Identify the performance quality level standards in accordance with FAR Part 37.601(a) (2).
- Describe the methods of surveillance for GSA to identify quality levels in accordance with FAR Part 46.401(a) (2).
- Establish a method to provide feedback to the Contractor regarding quality and timeliness of the service performance, i.e., copies of inspection forms, copies of tenant reports, data on tenant satisfaction scores; and any other drivers or measures of performance that are required by the CO or designee

- Establish timeframes for communication and performance improvement if needed.

- Establish specified procedures for changes to the Contract price when services are not performed or do not meet Contract requirements in accordance to FAR Part 37.601(a) (3).

- Ensure the Contractor has developed and implemented a QCP establishing procedures and responsibilities for controlling the quality of work performed.

B. ROLES AND RESPONSIBILITIES OF GOVERNMENT OFFICIALS

The following Government officials will participate in assessing the quality of the Contractor's performance. Their roles and responsibilities are described as follows:

1. The COR is the person designated by the CO. The COR is responsible for monitoring, assessing, recording, and reporting on the performance of the Contractor. The CO or their designee shall have the primary responsibility for completing forms that will be used to evaluate the Contractor's performance. In addition, the COR or designee shall use the Contractor Performance System (CPS) to document the Contractor's performance.

2. **Brian Dwyer** or person designated as the CO will have overall responsibility for overseeing the Contractor's performance. The CO shall be responsible for monitoring the Contractor's performance in the areas of Contract compliance and Contract administration. The CO will review the COR or designee's written inspections and assessments of the Contractor's performance and resolve any discrepancies that may arise between the Contractor and COR or their designee. In addition, the CO shall use the Contractor Performance System (CPS) to document the Contractor's performance.

C. TYPES OF WORK TO BE PERFORMED

1. The Contractor's performance in providing the following operation and maintenance services shall be evaluated by the Government:

a. Existing deficiency list
b. Building operating plan
c. Equipment inventory
e. Reference library
f. Building management support services
g. Operational requirements
h. Service requests

i. RESERVED
j. Maintenance program
k. Water treatment
l. Oil analysis
m. Lamp and ballast replacements
n. Repairs
o. Safety and environmental
p. Fire Protection and Life Safety equipment and systems
q. Other services as described in Section C

D. METHODS OF SURVEILLANCE

The method of surveillance is based on the performance criteria of the Contract terms and specifications. Each requirement will describe the tasks to be performed and the standard for successful performance. GSA intends to monitor and evaluate the Contractor's performance based on any or all of the following surveillance methods:

1. **Periodic Surveillance Inspections:** This method consists of selected surveillance tasks by the Government that do not require 100 percent inspection, or are performed on a random basis. The CO or their designee will evaluate the Contractor's reports, surveys, etc. on a weekly, biweekly, monthly, or quarterly basis.

2. **Tenant Interviews:** All tenant concerns received through the CO or their designee will be documented and evaluated on a planned schedule developed by the CO or designee. This method may help the CO or their designee focus on areas that may require further action from the CO.

3. **Service Request Documentation:** This method of surveillance will provide information to the CO or designee, such as identification of the types of service requests received the frequencies of service requests, corrective action taken, timeliness of completion, and any other pertinent data. At a minimum, this method shall be performed on a monthly basis.

4. **Tenant Satisfaction Surveys:** The Gallup Organization conducts surveys for one-third of GSA's tenants in Government-owned and leased buildings. These surveys gather important data in many areas, including specific categories pertaining to the operation and maintenance of GSA's buildings. The surveys provide the CO or their designee with satisfaction scores that can be further evaluated to determine if there are any weaknesses within the various programs. There are various measures that can be taken, such as reviewing the survey's comments, obtaining further feedback from the tenants, or sharing the scores with the Contractor to establish a plan of action.

E. QUALITY ASSURANCE FORMS AND REPORTS

Inspection Form: The GSA-3423 form, or as documented in the CMMS as an inspection type work order, will be used to document and evaluate the Contractor's performance. The COR will evaluate each event in accordance with the performance standards and performance requirements stated in this SOW. All tasks that are considered to have unacceptable performance shall be substantiated and documented on the GSA-3423 form, or as documented in the CMMS. The form, or the work orders will be completed and submitted to the Contractor within 24 hours. The Contractor shall return the GSA-3423 form, or complete the work order, identifying the corrective action taken within 14 days.

Inspection of Services Clause: The CO shall fill in applicable commercial or non-commercial clause as appropriate, i.e., FAR Part 52.246.4 paragraphs (e) and (f).

F. RESERVED

Monthly CO Report: At the end of each month the COR will summarize the overall results of the Contractor's performance for the previous month and send to the CO. If appropriate, the CO may investigate the event(s) further to determine if all the facts and circumstances surrounding the event(s) are accurate. The CO may discuss with the Contractor an event or trend that indicates unacceptable performance.

J.1. Contract Deliverables Reference

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
Existing deficiency inspection/initial deficiency/closeout list	C.4	Report due not later than 30 days after award of the Contract.	CO or designee.
Transition phase. Complete CMMS training during transition phase.	C.5.1	Allow 30 days prior to contract start.	CO or designee.
Phase out transition.	C.6	On the last performance day of the Contract, Contractor must turn over keys and identification badges or cards.	CO or designee.
List of key personnel and emergency contact information, which may include subcontractor contacts as applicable.	C.8.1	The Contractor must develop and submit to the CO within 21 days of award.	CO or designee.
CMMS Complete CMMS audit	C.8.5	The Contractor shall use the Government-furnished CMMS, to include validating and updating the equipment inventory database, including all data fields specified by the CO or designee. Complete yearly CMMS audit	CO or designee
Quality control program.	C.8.6	Develop and submit for approval prior to issuance of Notice to Proceed.	CO or their designee
Building operating plan.	C.9.1	Review and update with Property Management Staff within 60 days of start of contract.	CO or designee.
Radon mitigation program.	C.9.2.J.18	Program must be described in the building operating plan.	CO or designee.
Equipment inventory update.	C.10	The Contractor must update and verify the equipment inventory on an annual basis. Basically, we're asking for the contractor to add or remove equipment as it happens throughout the contract. Also, if contractor notices	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
		equipment on the list, but not on the property, or vice versa, then the contractor is expected to update the inventory.	
~~Monthly progress reports~~	C.11	Items typically covered in a monthly report will be discussed at the weekly performance review.	CO or designee.
Equipment condition assessment.	C.13	On an ongoing basis during the performance of the Contract.	CO or designee.
Review of design documents.	C.16	Review as requested.	CO or designee.
Building management support services.	C.17	Assist as requested.	CO or designee.
~~Energy and Water Efficiency Report~~	C.21.6	~~Monthly/Annually~~	CO or designee.
Emergency service request and callback repair plan report.	C.23.2	Written accounting of any emergency callback the morning of the next working day.	CO or designee.
Routine service request - response extension request.	C.23.5	Contractor must immediately notify with a written extension request if over 120 hours after initial notification.	CO or designee.
Preventative maintenance system.	C.35.1	At least 10 work-days prior to Contract start date.	CO or designee
Initial report and development of water treatment program.	C.36.3	Within the first month of the Contract.	CO or designee.
Weekly water treatment testing or makeup water chemical tracking.	C.36.5	Every week at the weekly meeting, COR will be provided results of water test taken within 24 hours of the meeting. Samples of condenser water will be taken as described in Exhibit 9 Water Sampling, and the results will be documented and shown with the allowable operating range as described in Exhibit 9 table for open loop cooling water systems. The following will be	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
		provided at weekly performance meeting. Tower conductivity, make up water conductivity, pH test, chlorides, sulfites levels.	
Periodic oil analysis.	C.37.1	At least annually, with results submitted and explained to CO or designee. It will then be entered in the CMMS as an attachment to the chiller annual PM work order.	CO or designee.
Repairs using subcontractors.	C.37.1	Must provide justification for subcontract need in advance.	CO or designee.
Reimbursable repairs completion date.	C.37.3	Mutually agreed upon by the CO or their designee and the Contractor.	CO or designee.
Lamps and ballasts containing mercury record.	C.38	Document monthly all purchases of mercury-containing lamps.	CO or designee.
Electrical safety	C.38.10	Deficiencies must be reported within 30 days after Contract award.	CO or designee.
Fire alarm system: If the Contractor must disturb materials he suspects may contain lead-based paint.	C.39.4	The Contractor must immediately report the condition to the CO or designee.	CO or designee.
Warranties not honored by manufacturer.	C.40.10	Contractor must immediately notify CO or their designee if an installer or manufacturer fails to comply with the terms of a warranty.	CO or designee.
Scheduling and recordkeeping of permits, personnel safety, control of hazardous substances, certifications, and records	C.41.2	Furnish copies as requested.	CO or designee.
Refrigerant control and certification log.	C.41.3	Refrigerant control logs must be updated and inspected as required.	CO or designee.
AQMD operating permits.	C.41.3	Copies made available immediately upon request.	CO or designee.
Polychlorinated	C.41.7	Immediate notification.	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
biphenyl (PCB) control transformer leaks.			
Workplace safety plan.	C.41.9	A safety and health plan must be submitted for review and approval within 30 days after award.	CO or designee.
Confined space entry permit system.	C.41.14	The Contractor must develop a confined space entry permit system for all permit-required confined spaces within 60 calendar days of the Contract start.	CO or designee.
Fire alarm system: If the Contractor must disturb materials he suspects may contain ACM.	C.41.15	The Contractor must immediately report the condition to the CO or designee.	CO or designee.
Hazardous materials: material safety data sheets – hazardous materials inventory.	C41.16	SDSs must be made available on request. The Contractor must prepare and submit hazardous materials inventory as an appendix to the building operating plan. This must be updated and resubmitted annually by September 30 of each year.	CO or designee.
Boiler Inspections and Tests	C.41.17.2	Boiler must be inspected annually and forms 349, 350 & 1034 completed as required. Must be annotated in the CMMS.	CO or designee
Backflow prevention devices – annual inspection certificate.	C.41.17.3	Annually. Certificates must be scanned in as an attachment to the Back flow PM work order in the CMMS	CO or designee.
Labeling and signage.	C.41.19	Labeling per OSHA standards shall maintained throughout the Contract period.	CO or designee.
Fire protection systems on line at all times unless approval is given during maintenance periods.	C42.1	Advance notification and approval per occurrence.	CO or designee.
Fire alarm system: If the Contractor encounters equipment that is in a condition that may	C.42.2	The Contractor must immediately notify the CO or their designee of the condition requiring	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
endanger life or property.		immediate action. Within 24 hours the Contractor must provide a written report to the COR of the hazardous condition and recommended corrective action.	
Fire alarm system: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies and testing methods outlined in NFPA 72.	C.42.2	Throughout the year. Documentation of the subject inspection, maintenance and testing results must be recorded on the applicable Inspection and Testing Form from NFPA 72.	CO or designee.
Water-based fire suppression systems: If the Contractor encounters equipment that is in a condition that may endanger life or property.	C.42.3	The Contractor must immediately notify the COR of the condition requiring immediate action. Within 24 hours that Contractor must provide a written report to the CO or their designee of the hazardous condition and recommended corrective action.	CO or designee.
Water-based fire suppression systems: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, and testing methods outlined in NFPA 25.	C.42.3	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded on the applicable "suggested form," as found in the current edition of NFPA 25.	CO or designee.
Water-based fire suppression systems: If the Contractor must disturb materials he suspects may contain ACM.	C42.3	The Contractor must immediately report the condition to the CO or designee.	CO or designee.
Fire-rated door assemblies: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in	C.42.4	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 80 and NFPA 101.	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
NFPA 80.Inspection of fire-rated door assemblies shall also meet the requirements in NFPA 101.			
Fire damper and combination fire/smoke dampers: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 80 and NFPA 105.	C.42.5	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 80 and NFPA 105.	CO or designee.
Smoke doors and assemblies: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 105.	C.42.6	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 105.	CO or designee
Smoke dampers: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 105.	C.42.7	Throughout the year. Documentation of the subject inspection, maintenance and testing results must be recorded in accordance with the requirements of NFPA 105.	CO or designee.
Portable fire extinguishers: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 10.	C42.8	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 10.	CO or designee.
Non-water-based fire extinguishing systems: The Contractor is responsible for meeting	C.42.9	Throughout the year. Documentation of the subject inspection, maintenance, and testing	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in the applicable NFPA standard.		results must be recorded in accordance with the requirements of the applicable NFPA standard.	
Smoke control systems: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 92A.	C. 42.10	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 92A.	CO or designee.
Emergency and standby power systems: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 110 and NFPA 111.	C.42.11	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 110 and NFPA 111.	CO or designee.
Emergency lighting systems and exit signage: The Contractor is responsible for meeting the inspection, maintenance, testing frequencies, testing methods, and documentation requirements outlined in NFPA 101.	C.42.12	Throughout the year. Documentation of the subject inspection, maintenance, and testing results must be recorded in accordance with the requirements of NFPA 101.	CO or designee.
Qualification of employees (May 1989) paperwork.	H.1.3	As requested.	CO or designee.
The collection and submission of GSA Form 139, Recording Presence.	H.7	Have available if requested.	CO or designee.
Asbestos awareness training certification.	H.13	Training within 60 calendar days after start. Certify completion within 5 days of training.	CO or designee.

DELIVERABLE	REFERENCE	DELIVERABLE DUE	POINT OF CONTACT
Submission of resumes for new employees.	H.15.4	The Contractor must submit resumes for all personnel prior to personnel beginning work.	CO or designee.
State licensing – if required.	H.15.5	Within 90 calendar days of beginning employment.	CO or designee.
Price proposal for additional services work.	H.18.2	Within 48 hours of the request.	CO or designee
Strike contingency plan (SCP) submission.	H.20	SCP must be submitted 5 calendar days prior to Contract start date and updated annually.	CO or designee.

EXHIBIT 2

J.2. Green Purchasing Report

Non Bio-based Purchase Reports						
Report Period Covered:	Date Report Prepared:					
Building:						
Contract Number:						
Contractor:						
	Attributes and Cost					
	CPG	DfE	Green Seal	Env Choice	Not Green	Eco Logo
Hand cleaners and sanitizers						
Mulch and Compost						
Odor Control / Neutralizer						
Mobile equipment hydraulic oil			$400.00 (sample entry)			
Stationary equipment hydraulic oil						
Diesel fuel additives				$200.00 (sample entry)		
2-cycle engine oil						
Penetrating lubricants						
Greases					$100.00 (sample entry)	
Sorbents						
Adhesives and mastics						
Towels						
General purpose de-icer						
Wood and concrete sealers	$3,500 (Sample Entry					

Resources Guide: Green Seal http://www.greenseal.org/FindGreenSealProductsAndServices.aspx
Design for the Environment (DfE) http://www.epa.gov/dfe/
EPA-CPG http://www.epa.gov/epawaste/conserve/tools/cpg/index.htm
SFtool Green Procurement - Cleaning Products - GSA Sustainable Facilities Tool sftool.gov

Green Purchase Report

Annual Contractor Reporting of Designated Bio based Purchases

Annual Contractor Reporting of Designated Bio-based Purchases

Section 9002 of the 'Farm Security and Rural Investment Act of 2002,' as amended by the 'Food, Conservation, and Energy Act of 2008, Pub. L. 110-246 (the Farm Bill)' requires Federal agencies to give a procurement preference to USDA-designated bio-based products and requires agency Contractors to report such purchases under service and construction contracts. The Federal Acquisition Regulation (FAR) Council subsequently published a bio-based final rule at 77 FR 23365, implementing the reporting requirement in FAR 52.223-2, 'Affirmative Procurement of Bio-based Products Under Service and Construction Contracts' with an effective date of May 18, 2012. To facilitate collection of report data, the FAR is amended based on final rule 78 FR 46794, which requires contractors to submit their bio based reports to https://www.sam.gov/.

To comply with the reporting provisions of the Act, the Contractor shall file an annual report on purchases of designated bio-based products used under the performance of this contract.

Where To Submit:

CY 2013 No later than October 31st in accordance with final rule 78 FR 46794 'Update to Bio based Reporting Requirement' the Contractor is responsible for submitting their annual bio based report using the following web sitehttps://www.sam.gov/.

Note: The US Department of Agriculture (USDA) bio-based products web site http://www.biopreferred.gov/ProductCategories.aspx.

EXHIBIT 3

J.3 RESERVED

EXHIBIT 4

J.4.Environmentally Sustainable Products and GSA Attribute Preferences

			Product Availability	
			Non-toxic Optional	Bio based Optional
Product Use	**Preferable Contents**	**Contents to Avoid**		
Adhesive - Aerosol	Rubber-based; low-VOC	SARA 313 chemicals (cyclohexane, hexane, methylene chloride); petroleum distillates; CFCs	ü	X
Adhesive - Epoxy	Non-toxic; low-VOC	Isopropyl alcohol; SARA 313 chemicals (toluene)	ü	X
Adhesive Remover	Soy-based mixture; citrus extract; low-VOC	Aerosol; petroleum distillates	ü	ü
Coil Cleaner	Non-acid cleaners with non-toxic, bio based contents; low-VOC; if acid must be used acetic or phosphoric acid are preferable	Sulfuric acid, hydrofluoric acid, or similar caustic chemicals. SARA 313 chemicals (trichloroethylene)	ü	ü
Concrete/Wood Sealer	Water-based, latex-based, or bio based sealers; low-VOC	Acrylonitrile; SARA 313 chemicals (n-methyl-2-pyrrolidone)	ü	ü
Degreaser	Water or bio based (soy) degreasers; non-toxic; non-aerosol; low-VOC	Aerosol; petroleum distillates	ü	ü
Deicer (Road and Windshield)	Biodegradable windshield deicer; salt-free ice melt; magnesium chloride or calcium chloride; calcium magnesium or magnesium acetate	SARA 313 chemicals (methanol, isopropyl alcohol, ethylene glycol); aerosol; sodium chloride	ü	ü
Descaler	Enzyme-based descaler; urea; trisodium phosphate; low-VOC	Hydrochloric (muriatic) acid or similar caustic compounds (oxatic or hydrofluoric acid); sodium hypochlorite	ü	ü
Fuel Additive	Bio based; non-toxic	Petroleum distillates	ü	ü
Graffiti Remover	Bio based content (soy/corn); low-VOC	SARA 313 chemicals (toluene, xylene); acetone; isopropyl alcohol	ü*	ü
Grease / Lubricant	Biodegradable/bio based content (soy or vegetable oil); non-toxic; re-refined lubricating oils; low-VOC	Petroleum or mineral-based oils; metallic soaps or polyurea derivatives; sulfur, chlorine, zinc; amine phosphate or other irritants	ü	ü
Light Bulbs	Energy Star or FEMP fluorescent bulbs or tubes; reduced mercury content	Mercury	N/A	N/A
Mastic	Water or acrylic-based; non-toxic; low-VOC	Petroleum-distillates (mineral spirits)	ü	X
Paint	Remanufactured or recycled paint; water-based or latex-based; low-VOC	Aerosol; oil-based (alkyd) paints (mineral spirits, aliphatic hydrocarbons); SARA 313 chemicals (toluene, xylene, ethyl benzene); acetone	ü	X
Paint Remover	Bio based; non-toxic; low-VOC	SARA 313 chemicals (n-methyl-2-pyrrolidone, methanol, methylene chloride); isopropyl alcohol	ü*	ü
Spray Foam	CFC-free; bio based (soy); low-VOC	HCFCs; SARA 313 chemicals (formaldehyde)	X	ü*

ü Product available and offered through GSA Advantage
ü* Product available, but not currently offered through GSA Advantage
X Product currently not available

Notes:

a - On the GSA Advantage website some environmental product indicators, such as ‘Non-Toxic’ and ‘Bio based’, are specified by the product vendor and have not been independently verified. Prior to procurement, it is important to examine the Material Safety

EXHIBIT 5

J.5. Building Information Sheet

BUILDING INFORMATION SHEET

1. BUILDING DATA:
   Property Manager Contact information:
   Contract Specialist Contact Information:
   O&M Contractor contact information:

   Normal Building Operating Hours: _____ (Opening and Closing of Building)

2. BUILDING AUTOMATION SYSTEMS and OTHER CRITICAL EQUIPMENT
   (Include manufacturer names, model #s, serial #s, tonnage KW, etc).

EMS/BAS/SMART Technologies: Yes or No
Water Treatment (coupon racks?) Yes or No

Number of Service Calls Monthly _____

EXHIBIT 6

J.6. RESERVED

EXHIBIT 7
J.7. Building Operating Plan Template

The Building Operating Plan, Exhibit 7, is a sample of the National Template issued in 2008. There are some items that are above and beyond the contents listed in C.9.2. Because GSA Central Office was in the process of collecting all of the BOPs it was felt that it would be best to keep using the current template with the understanding that it would be updated in the near future. Make changes where obvious updates are warranted. The BOP is a mandatory requirement and shall contain the minimum requirements (if applicable) in the SOW and additional items may be add by the regions if necessary.

Region 7 GSA believes the BOP is a joint document where both parties benefit from the data it contains. Generally, a BOP already exists for the facilities in this contract. We don't believe the contractor should develop, but should work closely with Property Management Office to fill in or update the data in the plan. This should be done within 60 days of start date. An example of a BOP is located in the Reference Document. The intent is that GSA is responsible for the plan, while the Contractor is responsible for providing any data needed by GSA to fill out the plan.

EXHIBIT 8

J.8. Smart Buildings

GSA Smart and Sustainable Buildings

Smart Technologies - Background and Purpose

Background Because of current Government energy reduction executive orders and regulatory mandates, GSA Public Buildings Service has several programs in development and at various stages of implementation that O&M Contractors should be aware of. One of these programs includes Smart Building technologies. Currently, approximately 250 buildings in the GSA portfolio are undergoing Smart Technologies design and implementation enhancements. Some facility projects involve complete detailed design-built from the infrastructure to completed project designs. Others involve modest retrofits to update key building controls systems. A key objective of implementing Smart Technologies in GSA buildings is to capture and make available more real-time performance data about the individual building systems (HVAC/BAS, Lighting, and Advanced Meters). This data will be made available to O&M Contractors and building support personnel and will increase in significance over time as more details are learned as GSA analyzes this new trend of monitoring building performance at a detailed level. O&M Contractors should be aware that if they are involved in operational support of one of GSA's newer Smart Buildings, that tools, processes, data, and some procedures may need to be modified to meet GSA requirements for long-term improved operational efficiencies as a result of the investment the Government is making in these new technologies. O&M Contractors should continue to monitor developments in this area as more buildings in the GSA portfolio deploy Smart Technologies.

1.0 Trend Toward Integrated Building System Technologies

New building technologies, and their convergence with traditional information technology, have altered the way in which facilities can be monitored, maintained, and operated. Trends in building systems technology have provided opportunities in the market place to alter the way facilities managers use real time data to operate their facilities more efficiently. Building Systems are getting increasingly more dependent on software, IT networks (physical and wireless), servers, internet access, and cloud-based/hosted solutions. This shift in domain expertise has outpaced traditional design and construction practices. As a result, building operations and maintenance staff need to adapt, be more proactive, and leverage the availability of real-time data to help them perform building systems support more effectively. This may involve more thorough planning and redefining some processes, procedures, and job roles in order to better operate the facilities that have these newer technology based systems.

EXHIBIT 9

J.9. Water Treatment

INSTRUCTIONS, CONDITIONS, AND NOTICES TO

Table of Contents

1.0 Introduction

This appendix establishes mandatory standards for water in HVAC and domestic water systems in GSA facilities, along with information related to the intent of the standards and guidelines that in most circumstances can be used to construct a water treatment program that will be approved by GSA. Treatment standards are mandatory; procedural instructions in these guidelines are advisory unless required by law or regulation. Subject to GSA approval, maintenance Contractors generally may propose alternative programs where accompanied with sufficient technical data and implementation detail for GSA to determine the likelihood of success of such an alternative program. Any program approved by GSA may be subsequently disapproved if results are unsatisfactory.

Regardless of the complexity or size of a loop, a qualified water treatment Contractor or personnel should be consulted or employed to help the building maintenance personnel develop a water treatment program specific to the needs of each system. The treatment chemicals themselves should be purchased through a licensed supplier that specializes in commercial and/or industrial water systems. Many water treatment chemicals require licenses for specific uses and are regulated by Federal, state, and Local governments. Maintenance Contractors are responsible for selecting and submitting for approval an appropriate program, and for compliance with laws regarding chemical discharge and usage.

Maintenance Contractors are responsible for providing all instrumentation and test equipment necessary to monitor compliance with these standards (e.g., installation of coupon racks or other corrosion monitoring equipment where not already installed).

2.0 Types of Recirculation Water Loops

There are five basic open and closed loop water systems used for the daily operation of commercial buildings. Each system is vital to the everyday operation of the buildings mechanical systems. The following open and closed loop water systems are described as follows.

2.1 Open Loop Cooling Water System

An open loop cooling water system generally uses cooling towers to cool condenser water that serves chilled water central plants, water source heat pumps and computer room air conditioning units. There are cases where a waterside economizer “free cooling” system is used in place of a chiller to cool condenser water during periods of low ambient conditions. During “free cooling” mode the chilled condenser water is passed through a heat exchanger to cool the closed loop cooling or chilled water loop.

An open loop is exposed to outside contaminants and requires frequent maintenance, chemical tests, and chemical treatment that should be determined by a water treatment Contractor. In general, large systems require chemical tests be performed weekly and a water treatment Contractor to inspect the chemical systems monthly. The four main goals of maintaining an open loop cooling system are; inhibition of mineral scale, corrosion, minimizing bacterial contamination, and general fouling inhibition. See Section 3.0 for a detailed description of cause and effect when using chemical inhibitors.

2.2 Closed Loop Cooling Water Systems

A closed loop cooling water system can either be used for chilled water or condenser water. In a closed loop chilled or condenser water system the cooling water is circulated through the chiller or heat exchanger where it is cooled then pumped through air handlers’ cooling coils, fan coil units, computer rooms units, water source heat pumps, etc.

In view of the fact that a closed loop cooling water system will not be exposed to as much outside containments and no evaporation as in an open loop system, the dissolved mineral concentration in the system will remain relatively constant and there will be virtually no need for blow down. Once the system is filled, every effort should be made to limit the amount of water leakage from seals, water sampling, valve testing and other routine system maintenance. When water leaks out of the system, it will be replaced with untreated makeup water. This water introduces additional minerals and dissolved oxygen into the system. Consistent chemical treatment is sustained with the use of chemical tablet "slug" feed water treatment products.
The treatment program for closed loop cooling water systems requires less frequent testing. The goal of the closed loop program is to inhibit corrosion, inhibit mineral scale formation, and inhibit bacteria growth. See Section 3.0 for a detailed description of cause and effect when using chemical inhibitors.

2.3 Steam and Condensate Recirculation Systems

Steam systems are closed loop systems that produce either saturated low pressure or superheated high-pressure steam via a steam boiler. The condensate water, with the addition of makeup water, is re-circulated through the steam boiler. A steam system should have an automated water makeup, a mechanical deaerator, condensate pumps, feed water pumps, steam traps, low feed water flame cut off controls and chemical pot feeders for condensate and makeup water treatment. The steam system will be a collection of steam regulators, steam turbines, heat exchanges for heating purposes, or through an absorption chiller to indirectly produce chilled water for space cooling.

The evaporation of water and elevated temperatures cause most of the minerals present in tap water to bond with each other, causing an increase in system mineral concentration. The four main goals to maintaining a steam system is prevention of mineral scale formation, oxygen corrosion, general corrosion, and condensate corrosion. Biocides are not needed in a steam system because bacteria do not grow in high temperature environments. Alternatively, if steam is supplied by a Local utility, then the steam has already been chemically treated and further chemical treatment may not be necessary. See Section 3.0 for a detailed description of cause and effect when using chemical inhibitors.

2.4 Closed Loop Hot Water Systems

A closed loop hot water heating system is not exposed to a great deal of outside containments. Therefore, the dissolved mineral concentration in the system will remain relatively constant and there will be virtually no need for blow down. Once the system is filled, every effort should be made to limit the amount of water leakage from seals, water sampling, valve testing and other routine system maintenance. When water leaks out of the system, it will be replaced with untreated makeup water. This water introduces additional minerals and dissolved oxygen into the system. Consistent chemical treatment is sustained with the use of slug feed water treatment products.

The treatment program for this system is very similar to the closed loop cooling system. The key difference is that hot water systems require more corrosion inhibitor as a result of higher water temperatures. In fact, most hot water systems require two to three times the corrosion inhibitor of closed loop cooling water systems. The goal of a closed loop hot water treatment program is to inhibit corrosion, mineral scale formation, and bacteria growth. See Section 3.0 for a detailed description of cause and effect on using chemical inhibitors.

2.5 Domestic Hot and Cold Water System

A domestic hot and cold water system provides potable water for washing and general domestic use. The water within these systems will contact food, people, or will be consumed, so there is no chemical treatment used for this system to prevent mineral scale or corrosion due to water supplied by the Local utility. The only water treatments used for these systems is the addition of water softeners and filtration systems. The reduction of the corrosive and scaling tendencies of oxygenated hard or softened water is done by repairing leaky fittings and fixtures, limiting the velocity of the circulating water, and/or limiting the operating temperature of the hot water system.

3.0 Water Chemicals Treatment Additives

Environmental regulations, handling guidelines and the chemical additives for water systems should be provided by a certified Local water treatment consultant. It is the building operator's responsibility to ensure compliance with municipal by-laws, and environmental regulations when disposing of chemicals and handling accidental spills. Disposing of chemically treated water into the sewer system must be monitored in blow down logs and not allowed to exceed levels specified by municipal sewage utility by-laws.

The chemical additives suggested herein are organized by class to encompass a variety of chemical additives that are used in open and closed water loops and steam boiler systems.

3.1 Mineral Scale Inhibitor

Mineral scale is the precipitation of dissolved minerals such as calcium carbonate onto the surfaces of the cooling tower, boiler, heat exchangers tubes, and piping. This mineral scale forms an insulating layer on the surfaces that inhibits heat transfer and restricts flow through the system. Mineral scale also promotes corrosion and fouling in open loop and steam systems. All re-circulating water and steam boiler systems should have a mineral scale inhibitor as part of their water treatment program.

Mineral scale inhibitors are separated into two main categories, sludge conditioners and dispersants. Sludge conditioners are typically used when there is a relatively high concentration of calcium and magnesium in the makeup water. Sludge conditioners are crystal modifiers that allow the minerals to precipitate but interfere with the structure of the crystal to help form a soft sludge that can be easily removed from the steam boiler or cooling tower through blow down. Dispersants are usually polymer-based molecules that help to keep the trace minerals in solution so that they do not precipitate into scale deposits. The mineral scale inhibitors are especially needed when there is little or no pretreatment of the makeup water or when filtration equipment is not reliable. Even with excellent control of the scale inhibitor, chemical scale formation still occurs.

Water treatment consultants use computer models to determine the type of scale inhibitor needed as well as the limits for system pH and total dissolved solids (TDS). These computer models take into account the specific operating parameters of the system and help the water treatment consultant to choose a specific water treatment program that will work.

<u>Open Loop Cooling Water System:</u>

An open re-circulating cooling water treatment program commonly uses a chemical additive that is a combination of a mineral scale inhibitor and a corrosion inhibitor. The type and dosage of mineral scale inhibitor needed is dependent upon the concentration and composition of the minerals in the makeup water, the pH of the cooling water, and the temperature of the cooling water.

The overall scale inhibitor program for a cooling water system may consist of a mineral scale inhibitor additive (such as a polymer dispersant), acid for pH control, and limits for the total dissolved solids and/or conductivity of the cooling water. Acid feed and pH control will not be needed in every system.

Steam Systems with Re-circulating Water:

In steam boilers, the buildup of an insulating layer can lead to tube failure and efficiency losses. Calcium and magnesium are the most abundant forms of mineral scale found in a steam boiler system because the solubility of these two minerals decreases as the temperature increases. To minimize the potential for mineral scale formation, most steam boilers have some type of makeup water pretreatment to remove certain minerals from the water before it enters the boiler. The goal of most pretreatment equipment is to minimize the concentration of these two minerals in the makeup water so that there is a less significant chance that they will precipitate and form a crystal scale deposits. Even with good pretreatment, mineral scale inhibitors are needed in all steam boiler systems.

Dispersant mineral scale inhibitor programs are used in steam boilers that have good pretreatment and very low levels of calcium and magnesium in the makeup water. Dispersants are usually only used when the total hardness in the makeup water is greater than 5 ppm consistently. The dispersants are usually a polymer based molecule that helps keep the trace minerals in solution so that they do not precipitate into scale deposits.

Closed Loop Cooling Water and Hot Water (Heating) Systems

In a closed loop system the mineral concentration is relatively stable because very little makeup water is needed. This helps to minimize the need for mineral scale inhibitors. In systems that have poor quality makeup water, with a total hardness above 300 ppm, it is best to pre-treat the water with softeners to remove calcium and magnesium from the makeup water. In most cases, pretreatment of the makeup water is not necessary. Closed loop cooling and hot water systems should be treated with a polymer dispersant mineral scale inhibitor. This scale inhibitor is usually combined with a corrosion inhibitor in a one-drum formulation.

3.2 Corrosion Inhibitor

Open Loop Cooling Water Systems:

The corrosion inhibitor chemical treatment protects the metal piping from degradation over time. The type of corrosion inhibitor that is used depends upon the specific metallurgy present in the system as well as the chemistry of the makeup water and pH level in the water. Corrosion inhibitor additives are intended to provide a protective layer on the interior walls of piping which stops the occurrence of corrosion in the system. A certified chemical water treatment consultant should be contacted to determine the specific type and amount of corrosion inhibitor necessary for each building's distinct system.

In most cases, there is more than one type of metallurgy in a system, such as galvanized steel, copper, stainless steel, etc. Different metals require distinct chemicals to prevent corrosion, so it is important that the corrosion inhibitor portion of the program have additives that are specific to each type of metal. In most cases, blends of different corrosion inhibitors are used to ensure that all of the metal is protected.

Closed Loop Cooling and Hot Water Systems

Corrosion is the principal concern in a closed loop cooling and hot water systems. There are many different types of corrosion inhibitors available on the market, but the most common products are nitrite based. As with any corrosion inhibitor program, the type of program used is

determined by the type of metals used throughout the system. Mild steel systems should be treated with nitrite, molybdate, or phosphonate type inhibitors. Systems containing copper should have some type of azole product.

If bacterial contamination is a problem, Nitrite programs should be avoided. The nitrite corrosion inhibitor can act as a food source for bacteria. The bacteria will convert the Nitrite into Nitrate and Ammonia. This will destroy the corrosion inhibitor function of the product. A certified chemical water treatment consultant will be able to find the best product for this type of system.
There is one difference between a closed loops cooling and heating systems, which is the dosage of the corrosion inhibitor. The corrosion inhibitor of closed loop hot water system will have dosage 2 – 3 times greater than the dosage for a closed loop cooling water system.

3.3 Bacteria Contamination Control

The control of the bacteria growth is the most important part of an open loop cooling and closed loop cooling and hot water treatment program because bacterial contamination can lead to fouling, mineral scale, and corrosion. Bacterial contamination is controlled through the use of biocides. Below is a description on bacterial contamination control that is used for open loop cooling, closed loop cooling, and closed loop hot water systems.

Open Loop Cooling Water Systems

Open loop cooling water systems are inherently prone to bacterial contamination without a proper water treatment. High bacteria levels in a cooling water system can lead to bio-deposits (algae for example) and increased fouling that can reduce heat transfer in the heat exchangers and cooling tower. The bio-deposits and increased fouling can reduce water flow through the system if there is improper water treatment.

In view of the fact that open cooling water systems are highly susceptible to bacteria growth, the water treatment program should have some type of biocide chemical additive. Biocides kill living organisms and/or bacteria and can be categorized as either oxidizing or non-oxidizing. An oxidizing biocide, when applied at the correct dosage, will kill all types of bacteria. A non-oxidizing biocide targets certain bacteria and will not kill some types of bacteria.

A non-oxidizing biocide can be compared to an Anti-biotic that is used to treat bacterial infections in people. Over dosing a system or improper usage of a non-oxidizing biocide can create strains of bacteria in the cooling water system that are resistant to the biocide. Limit the program to the use of non-oxidizing biocides alone is never recommended. It is good practice to utilize both an oxidizing biocide and a non-oxidizing biocide to strictly control bacteria contamination. This method is more costly so some building managers chose to only utilize only oxidizing biocides.

The types of oxidizing biocide needed are dependent upon the physical limitations of the facility, safety concerns, costs, and maintained pH of the recirculation water. For example, bromine based oxidizing biocides should be used any time the pH of the water in the system is above 7.5. A water treatment supplier or consultant can provide specific information regarding the different types of oxidizing and non-oxidizing biocides that will suit the needs of your system.

It is important to note that there are both Federal and state laws that regulate the usage and application of biocides for commercial and industrial usage. When choosing a water treatment supplier or consultant, make sure that they are properly licensed and registered in your area to provide guidance on the usage of biocides or pesticides. Also, it is important that you only use biocide products that are specifically approved for use in an open loop cooling water system.

Closed Loop Cooling and Hot Water Systems

It is not uncommon for closed loop systems to experience bacterial contamination, especially if these systems are treated with nitrite. In general, the more makeup water a system needs, the more likely that system is predisposed to bacteria problems.

If a closed loop system has a bacteria problem or will not maintain a nitrite residual, there are basically two options to correct the problem. The first solution is to switch the corrosion Inhibitor program to a program that does not contain a food source for bacteria. The second best solution is to utilize non-oxidizing biocides to treat the bacteria problem. A non-oxidizing biocide should be used in a closed loop system because they do not react with the corrosion inhibitors and they do not promote corrosion themselves. An oxidizing biocide will degrade most corrosion inhibitors and they can increase corrosion rates in a closed loop system. It is always best to contact a licensed water treatment consultant that can help you to determine the dosages of biocide needed and which biocide will work for your system.

3.4 General Fouling Inhibitor

A fouling inhibitor is added to an open loop cooling water system when the makeup water contains high levels of suspended particles or turbidity. This includes high levels of dirt, silt, Iron, or other colloidal particles present in the makeup water, which occurs in rare applications. If this is the case, it may be necessary to add a fouling inhibitor additive to the system. These inhibitors are similar to mineral dispersants but are designed to target suspended particles instead of dissolved minerals. Generally, the mineral dispersant treatment program will be sufficient to provide general system fouling inhibition. If the mineral dispersants are not sufficient, contact a licensed water treatment consultant to see if a fouling inhibitor is needed for the system.

3.5 Oxygen Corrosion Control

Steam Systems with Condensate Recirculation

Due to the high temperatures produced by a steam boiler plant, the corrosive reaction between oxygen and carbon steel is greatly increased. The oxygen corrosion in a steam system usually causes internal pipe pitting and can lead to pipe failures and leaks very rapidly. In order to protect the steam system metal from oxygen pitting, it is very important to remove the oxygen from the makeup water using both mechanical desecration and chemical processes.

At room temperature, water normally contains about 9 ppm of dissolved oxygen. As the temperature of the water increases, the solubility of oxygen in the water decreases. A mechanical desecrator is designed to raise the temperature of the feed water to just below boiling so that the oxygen concentration in the water drops from 9 ppm to less than 0.05 ppm. After the makeup water is mechanically depleted of its oxygen content, it is still necessary to reduce it further. The further reduction in oxygen content is done with an oxygen scavenger chemical, which will reduce the concentration of oxygen to levels below 0.005 ppm.

There are many different types of chemicals used as Oxygen Scavengers. The most common Oxygen Scavenger is Sodium Bi-Sulfite. Contact a licensed water treatment consultant that will decide what product meets all the needs of a given steam system.

3.6 General Corrosion Control

Steam Systems with Condensate Recirculation

A steam system should include an Oxygen corrosion control treatment program along with a general system corrosion control treatment program. A general corrosion control chemical

treatment program includes the addition of buffering agents to the boiler feed water to minimize the potential for corrosion throughout the system. This buffering agent is frequently in the form of alkali solution. The alkali species neutralize acids in the water and raise the pH to create a slightly Basic environment that is less corrosive to the metal piping.

Some makeup water has enough natural alkalinity and is able to provide the feed water system with sufficient buffering, to keep the pH of the steam boiler feed water at or above 10.2. When there is not enough natural Alkalinity in the steam boiler feed water, a Caustic chemical should be added to raise the pH above 10.2. A water treatment consultant will be able to test the feed water in the steam system to determine if Caustic feed is needed and what dosage is necessary to raise the pH above 10.2.

3.7 Condensate Corrosion Control

Steam Systems with Condensate Recirculation

The feed water is heated to produce high or low-pressure steam by the boiler. When this occurs some of the alkali solution species will breakdown into Carbon Dioxide (CO_2) gas. The CO_2 vapor produced will leave the steam boiler, along with the steam and is dissolved into the condensed condensate water, after the energy from the steam is utilized. As the CO_2 dissolves into the condensate water it produces a carbonic acid and will dramatically increase the corrosiveness of the condensate return water. In order to protect the condensate return piping from corrosion, the condensate must be feed with corrosion control chemicals.

The two most common types of condensate water treatment are neutralizing and filming chemical additives. A neutralizing chemical additive will neutralize the Carbonic Acid in the condensate water and raise the pH above acidic levels. A filming chemical additive will provide a protective layer on the interior of the piping to keep the condensate return water from actually touching the metal. In most cases a neutralizing chemical additive will tend to be slightly more expensive, but these chemicals are usually more effective.

There are limitations to the type of condensate treatment implemented for steam systems. For example there are certain treatment programs are restricted if the steam is used for food preparation or direct contact humidification, a treatment product that is approved for use with food preparation or direct contact humidification should be used. Contact a licensed water treatment consultant or supplier for more information regarding which products can be used and for which systems these chemicals are allowed.

4.0 Setting Up a Water Treatment Program

The most important step to setting up a water treatment program is to know what systems are present in the building and what are the requirements for water properties such as pH, conductivity, total dissolved solid (TDS), etc. The water property ranges, definitions and testing schedules are in Section 5. Many of these water chemistry properties can be monitored using stand-alone controllers or global building automation system (BAS) controls. A licensed water treatment consultant should be employed to model the building's water systems and develop an appropriate treatment plan for each system. There are many treatment plans available; below is a summary of typical plans used for each system, which are used by water treatment consultants in the United States.

4.1 Open Loop Cooling Water Systems

Monitoring conductivity as a measurement of the concentration of Total Dissolve Solids (TDS) is a crucial part of controlling an open loop water system. Conductivity limits should be set by a

water treatment consultant and routinely monitored to ensure that mineral scale does not form. Cycles of concentration of the system should not exceed limits set by water treatment consultant. Automated blown down controls with a conductivity meter is recommended for open loop systems. The pH of the water should be routinely monitored especially if an acidic additive is used to control the pH. Corrosion inhibitor residual tests should also be run to verify that the system is receiving the correct dosage. Routine tests should be conducted daily, weekly, or monthly to monitor oxidizing biocide residuals and bacteria concentrations to ensure Micro-Bio levels are under control. In general, bacteria concentrations in the open loop cooling water system should be less than 100,000 cfu/ml (colony forming units per milliliter) at all times.

Corrosion Monitoring should be performed using a real time on-line monitoring device or corrosion coupons with a 90-day rotation schedule. Coupon test results should show mild steel corrosion rates less than 5.0 mils per year (MPY) and Copper Corrosion Rates less than 2.0 MPY at all times.

Recommended Corrosion and Scale Control Programs

Program 1:

Description:	Multifunctional Molybdate Based Corrosion Inhibitor and Dispersant
Function:	Corrosion Inhibition, Mineral Scale Inhibition
Components:	Molybdate for Mild Steel Corrosion Control Azole for Copper Corrosion Control Dispersant for Mineral Scale Inhibition
Form:	Liquid
Feed Location:	Tower Basin or Header
Control Tests:	Molybdate Residual or Test for Tracing Agent if present, Corrosion Monitoring

Program 2:

Description:	All Organic Based Multifunctional Corrosion Inhibitor and Dispersant
Function:	Corrosion Inhibition, Mineral Scale Inhibition
Components:	Phosphonate for Mild Steel Corrosion Control Azole for Copper Corrosion Control Dispersant for Mineral Scale Inhibition
Form:	Liquid
Feed Location:	Tower Basin or Header
Control Tests:	Organic Phosphate Test or Test for Tracing Agent if Present, Corrosion Monitoring

Program 3:

Description:	Zinc Phosphate Multifunctional Corrosion Inhibitor and Dispersant
Function:	Corrosion Inhibition, Mineral Scale Inhibition
Components:	Zinc and Phosphate for Mild Steel Corrosion Control Azole for Copper Corrosion Control Dispersant for Mineral Scale Inhibition
Form:	Liquid
Feed Location:	Tower Basin or Header
Control Tests:	Ortho-Phosphate or Test for Tracing Agent if present

Program 4:

Description:	Stabilized Phosphate Corrosion Inhibitor and Dispersant
Function:	Corrosion Inhibition, Mineral Scale Inhibition
Components:	Phosphate for Mild Steel Corrosion Control Azole for Copper Corrosion Control Dispersant for Mineral Scale Inhibition
Form:	Liquid
Feed Location:	Tower Basin or Header
Control Tests:	Ortho-Phosphate or Test for Tracing Agent if present, Corrosion Monitoring

Bacteria Control Programs

Program 1:

Description:	Chlorine Bleach Oxidizing Biocide
Function:	Oxidizing Biocide
Components:	Sodium Hypochlorite
Form:	Liquid

Feed Location: Tower Basin
Control Tests: Free Chlorine Residual, Bacteria Monitoring

Program 2:
Description: Stabilized Chlorine Oxidizing Biocide
Function: Oxidizing Biocide
Components: Stabilized Sodium Hypochlorite
Form: Liquid
Feed Location: Tower Basin
Control Tests: Free Chlorine Residual, Bacteria Monitoring

Program 3:
Description: Activated Bromine Oxidizing Biocide
Function: Oxidizing Biocide
Components: Separate Feed of Sodium Hypochlorite
Separate Feed of Sodium Bromide
Form: Both Liquid
Feed Location: Mix together in feed line to activate Bromine then feed to Tower Basin
Control Tests: Free Chlorine Residual, Bacteria Monitoring

Program 4:
Description: Stabilized Bromine Based Oxidizing Biocide
Function: Oxidizing Biocide
Components: Stabilized Bromine
Form: Liquid
Feed Location: Tower Basin
Control Tests: Free Chlorine Residual, Bacteria Monitoring

Program 5:
Description: Solid Chlorine Bromine Tablets
Function: Oxidizing Biocide
Components: Chlorine and Bromine
Form: Solid Tablet
Feed Location: Fed from pot feeder to Tower basin
Control Tests: Free Chlorine Residual, Bacteria Monitoring

Program 6:
Description: Solid Chlorine Bromine Tablets
Function: Oxidizing Biocide
Components: Chlorine and Bromine
Form: Solid Tablet
Feed Location: Fed from pot feeder to Tower basin
Control Tests: Free Chlorine Residual, Bacteria Monitoring

Program 7:
Description: Isothiazoline
Function: Non-Oxidizing Biocide
Components: Isothiazoline
Form: Liquid
Feed Location: Slug fed to tower basin

Control Tests:	Bacteria Monitoring

Program 8:

Description:	Glutaraldehyde
Function:	Non-Oxidizing Biocide
Components:	Glutaraldehyde
Form:	Liquid
Feed Location:	Slug fed to tower basin
Control Tests:	Bacteria Monitoring

Program 9:

Description:	DBNPA
Function:	Non-Oxidizing Biocide
Components:	Dibromonitropropianamide
Form:	Liquid
Feed Location:	Slug fed to tower basin
Control Tests:	Bacteria Monitoring

Program 10:

Description:	Quaternary Amine
Function:	Non-Oxidizing Biocide
Components:	Quaternary Amine
Form:	Liquid
Feed Location:	Slug fed to tower basin
Control Tests:	Bacteria Monitoring

Program 11:

Description:	MBT
Function:	Non-Oxidizing Biocide
Components:	Methylene-bis-thiocyanate
Form:	Liquid
Feed Location:	Slug fed to tower basin
Control Tests:	Bacteria Monitoring

4.2 Closed Loop Cooling and Hot Water Systems

General guidelines for the control of a closed loop cooling or hot water system include the monitoring of the conductivity, pH, corrosion, and micro bio-levels. Water chemistry limits should be set by a water treatment consultant and routinely monitored by maintenance personnel to ensure that mineral scale and corrosion does not occur. Automated make up water controls along with a makeup water meter should be added to the system to maintain a consistent amount of water. The pH of the water should be routinely monitored, especially if an acidic additive is used to control the pH. Corrosion inhibitor residual tests should also be run to verify that the system is receiving the correct dosage. Monthly monitoring of bacteria concentrations to ensure biological organism levels are under control. If biological organism levels are above recommended levels, there could be a point where oxygen is entering the system, i.e. a leak in the system. Corrosion monitoring should be done with iron or copper corrosion coupons with a six month rotation schedule. Coupon test results should show mild steel corrosion rates less than 0.5 mils per year (MPY) and Copper corrosion rates less than 0.2 MPY at all times.

Recommended Corrosion and Scale Inhibition Programs

Program 1:

Description:	Multifunctional Molybdate Based Corrosion Inhibitor and Dispersant
Function:	Corrosion Inhibition, Mineral Scale Inhibition
Components:	Molybdate for Mild Steel Corrosion Control Azole for Copper Corrosion Control Dispersant for Mineral Scale Inhibition
Form:	Liquid
Feed Location:	Slug feed with Pot Feeder
Control Tests:	Molybdate Residual or Test for Tracing Agent if present, Corrosion Monitoring

Program 2:

Description:	Multifunctional Nitrite Based Corrosion Inhibitor and Dispersant
Function:	Corrosion Inhibition, Mineral Scale Inhibition
Components:	Nitrite for Mild Steel Corrosion Control Azole for Copper Corrosion Control Dispersant for Mineral Scale Inhibition
Form:	Liquid
Feed Location:	Slug feed with Pot Feeder
Control Tests:	Nitrite Residual or Test for Tracing Agent if present, Corrosion Monitoring

4.3 Steam and Condensate Recirculation Systems

The water treatment program for a steam and condensate recirculation system should include monitoring for conductivity. Proper Conductivity limits will vary slightly depending upon the type, age, and size of the steam boiler system. The absolute maximum conductivity level for any steam system is 5,500 μmhos.

The alkalinity concentration in the steam boiler should routinely be monitored my maintenance personnel. There two main types of alkalinity measured in a steam system total (M)-Alkalinity and hydroxide (OH)-alkalinity. The P-alkalinity test is used to measure the portion of M-alkalinity contributed to by Hydroxide (OH)-alkalinity. Barium chloride is added to water samples containing OH-alkalinity then sulphuric acid is added to neutralize the OH, alkalinity is then measured to show the change in alkalinity due to the elimination of OH molecules. P-Alkalinity is used to monitor the condensate return system; to avoid corrosion within the steam boiler OH-alkalinity is measured. Proper chemical dosage for the steam boiler is ensured by running routine chemical residual tests for the oxygen scavenger and internal scale inhibitor.

In addition, it is very important to monitor the chemistry of the steam boilers feed water. Maintenance personnel should test the conductivity of the feed water on a regular basis. If makeup water pretreatment is exists, Maintenance personnel should also test the total hardness level of the feed water.

The remaining tests to be conducted on condensate return for filming Amine residual, or Iron concentration and the condensate pH should be tested to ensure that the system has received the proper chemical dosage. Further tests can be conducted by a water treatment consultant to determine if dosages should be altered to maintain proper steam, makeup and feed water chemistry.

Recommended Oxygen Scavengers

Program 1:

Description:	Sulfite
Function:	Chemical Oxygen Scavenger
Components:	Catalyzed Sodium Sulfite
Form:	Liquid or Powder
Feed Location:	Deaerator Drop Leg or Storage Section
Control Tests:	Residual Sulfite

Program 2:

Description:	Volatile Oxygen Scavenger
Function:	Chemical Oxygen Scavenger
Components:	Various Types Available
Form:	Liquid
Feed Location:	Deaerator Drop Leg or Storage Section
Control Tests:	DEHA Residual

Recommended Scale Control Programs

Program 1:

Description:	Precipitating Phosphate
Function:	Sludge Conditioner
Components:	Phosphate
Form:	Liquid
Feed Location:	Boiler Steam Drum or Feedwater line
Control Tests:	Conductivity, P Alkalinity, M Alkalinity, OH Alkalinity, Silica, Ortho-Phosphate, Visual Color Test

Program 2:

Description:	Polymer Dispersant
Function:	Mineral Dispersant
Components:	Polymer
Form:	Liquid
Feed Location:	Boiler Steam Drum or Feedwater line
Control Tests:	Feedwater Hardness, Polymer Residual, Silica, OH-Alkalinity, Tracing Agent if available

Program 3:

Description:	Chelant
Function:	Sludge Conditioner
Components:	EDTA Chelant
Form:	Liquid
Feed Location:	Boiler Steam Drum or Feedwater line
Control Tests:	Feedwater Hardness, Chelate Residual, Silica, O-Alkalinity, Tracing Agent, if available

Recommended Condensate Corrosion Control

Program 1:

Description:	Neutralizing Amine
Function:	Raise pH of Condensate
Components:	Various Types
Form:	Liquid

Feed Location:	Steam Header or Boiler Steam Drum
Control Tests:	Condensate pH, Condensate Iron

Program 2:

Description:	Filming Amine
Function:	Provide Protective Barrier for Condensate Piping
Components:	Various Types
Form:	Liquid
Feed Location:	Steam Header or Boiler Steam Drum
Control Tests:	Filming Amine Residual, Condensate Iron

Recommended General Corrosion Control (Steam Drum)

Program 1:

Description:	Caustic
Function:	Increase Alkalinity
Components:	Sodium or Potassium Hydroxide
Form:	Liquid or Powder
Feed Location:	Deaerator storage or Boiler Steam Drum
Control Tests:	O-Alkalinity

5.0 Water System Testing

Routine water chemistry tests play an important role in maintaining building water systems; they can be used to anticipate and prevent water's capacity to accelerate fouling, scaling and corrosion within a mechanical system. Chemical test kits for each building water system are available through most water treatment chemical suppliers or consultants. Section 5.2 lists the most common water tests used and a water treatment consultant can determine if a system requires more rigorous tests.

5.1 Water Sampling

When water samples are taken, they should be isolated from large amounts of mineral buildup, incoming feed water or makeup water and chemical feed points. Samples should be collected during normal operation before system blow down and chemical dosing. When collecting water, allow the samples container to overfill and to avoid sample contamination use sampled water to rinse cap or container. Label the container appropriately and test sample as soon as possible. A licensed water treatment consultant will be able to give advice on chemical testing. However, building maintenance staff should be familiar with specific test procedures that should be provided by the chemical test equipment supplier(s).

5.2 Common Water Chemistry Tests

Conductivity:

This test is used to estimate the Total Dissolved Solids (TDS) concentration in a water sample. Conductivity is the measures of electrical conductance in the water. In general 1.0 umhos of conductance is equal to 0.67 ppm of total dissolved solids or minerals. High levels of conductivity increase the scaling potential of the system which depends on water temperature, composition of dissolved solids and interaction with other chemical additives, and the system's metallurgy.

Cycles of concentration for a water system is measured as the ratio of mineral content (TDS) of system water divided by the mineral content (TDS) of make-up water. High cycles of

concentration are an indicator of increased scaling potential. Maintaining high cycles can be done with proper chemical water treatment. Cycles of concentration are mainly monitored in open loop cooling systems and general range from 2 to 14 times the mineral content of the makeup water. The cycles of concentration of a system are completely dependent upon the TDS of the makeup water and the optimum point where corrosion and scale build-up are minimized. A water treatment consultant should specify the optimal cycles for the water system.

pH:
In general, low pH water is corrosive and has a high acidity, a meter reading lower than 7.0. High pH water is prone to scaling and is considered to be alkaline and is specified by a meter reading greater than 7.0 and less than 14. Tests for pH, acidity or alkalinity, are used to monitor chemical treatment product dosages and are used for general troubleshooting of a water system.

Nitrite:
The concentration of Nitrite in a closed loop cooling or hot water system's water sample is measured to monitor the corrosion inhibitor program. Nitrites is used to passive metal surface and remove dissolved oxygen resulting in a non-corrosive water system. A water treatment consultant will set the minimum levels of nitrate that need to be maintained.

Sulfite:
This test is a residual oxygen scavenger test used to determine the concentration of sulfite available in a closed loop hot water system. If used as the oxygen scavenger, Sulphite must be maintained at levels between 30-50 mg/L (ppm). When Sulphite levels are not maintained corrosion will occur. Over charging a system with Sulphite will increase the conductivity of the water, corrosively and may cause the growth of sulphate reducing bacteria.

Silica:
Silica testing measures the concentration of Dissolved Silica in a water sample, typically for steam boiler systems. If silica levels are too high and pH is low scaling will occur. Silica can form extremely hard and dense scale on heat transfer surfaces increasing the risk of mechanical failure. Common water test sample points for silica include the boiler drum and the saturated steam.

Corrosion Coupons:
Corrosion coupons are small, slender circular or rectangular pieces of metal (Iron or copper) used to monitor the actual corrosion level in a water system. Typically corrosion coupons are monitored on a 90-day rotation schedule. The original dimensions, thickness, of the coupon are known. When the coupon is removed from the water loop the change in dimensions are noted as the corrosion rate. If the corrosion inhibitor program is effective the coupon's corrosion rate are below the recommended levels, as specified in Section 5.3.

Bacteria Dip Slide:
This test measures the concentration of bacteria in an open or closed loop cooling water system water sample. A media called "Agar" is wetted with the cooling water then is placed into a tube were Bacteria, yeasts, and fungi are grown. This test is used to confirm that biocide program in an open or closed cooling water system is effective.

Dissolved Iron:
Iron testing is used to monitor corrosion products in a water system. Iron testing is used to either verify that the treatment program is working or to troubleshoot a problem. Dissolved Iron levels should be less than 30 ppm. Increased corrosion problems, leaks, poor heat transfer efficiency, as well as bacteria problems can occur when the dissolved Iron level is high.

Molybdate:
A Molybdate test measures the concentration of Sodium Molybdate in both closed and open loop cooling water systems. A water treatment consultant will state the minimum levels of Molybdate that is needed to maintain the systems' corrosion inhibitor program.

Organic Phosphate:
This test measures the concentration of organic Phosphate in an open loop cooling water system. This test is needed only if an organic phosphate is used as a corrosion inhibitor. A water treatment consultant will set the minimum levels of organic phosphate that need to be maintained to prevent corrosion.

Ortho-Phosphate:
This test measures the concentration of inorganic Phosphate in a water sample. Ortho-Phosphate is a commonly used in closed loop cooling water and hot water systems as an Iron (ferrous) and non-ferrous alloy corrosion inhibitor. If phosphate is used a minimum concentration of 200 – 300 mg/L (ppm) is required.

Free Chlorine:
A free chlorine test measures the concentration of active oxidizing biocide in a open loop cooling water system. Free Chlorine tests are used to monitor both Chlorine and Bromine and are more accurately described as free halogen tests. These tests are commonly used to monitor the dosage of oxidizing biocide in an open re-circulating cooling water system. Since excessive chlorine concentrations are corrosive, a free chlorine residual of 0.2 to 0.8 ppm is maintained.

5.3 Maintenance Parameters

The following charts list the minimum monitoring requirements for each open loop or closed loop water system. The frequency of the water testing can be increased to better maintain the performance in open loop cooling water, steam boiler, or closed loop system. The chemical test ranges and frequencies given are general and should be clearly defined by a certified water treatment consultant. A water treatment program can be controlled to an optimum level if the system is checked on a daily basis and automated monitoring equipment, such as conductivity and pH meters, are installed.

The operating ranges are **mandatory performance standards**. The maintenance Contractor must maintain water within these tolerances, unless GSA gives a written waiver for specific reasons. GSA may require more rigorous standards where circumstances dictate. The testing frequencies establish **minimum mandatory frequencies**. Contractors may test more frequently. Sporadic short-term deviations from operating ranges may not, depending on the terms and conditions of specific Contracts, result in a determination of unsatisfactory Contract performance where the Contractor takes prompt action to correct the condition.

Open Loop Cooling Water Systems

Chemistry Tests	Frequency of Test	Operating Ranges
Tower Water Conductivity	Auto Blow down: Weekly, Monthly Manual Blow down: Daily	(110-1600 ppm)
Makeup Water Conductivity (Hardness)	Auto Blow down: Weekly, Monthly	(30-400 ppm)
pH Test	Daily, Weekly	7.5 to 9.5
Corrosion Monitoring (Coupon Test)	Quarterly (3 months)	Iron: 2 to 5 mils/ year Copper: 0.2 to 0.5 mils/ yr
Bacteria Testing	Monthly	Max: 10^3 cfu/ml (colony forming units/ ml)
Chlorides	Weekly, Monthly	Max: 250 ppm as Cl Max: 410 ppm as NaCL
Sulfites	Weekly, Monthly	50-100 ppm SO_3 80-160 ppm Na_2SO_3
Corrosion Inhibitor Residual	Auto Chem. Feed: Weekly, Monthly	Defined by Consultant
Oxidizing Biocide Residual	Auto Chem. Feed: Weekly, Monthly	Defined by Consultant

Closed Loop Cooling Water Systems

Chemistry Tests	Frequency of Test	Optimum Operating Ranges
pH	Monthly	7.5-9.5
Total Dissolved Solids (TDS) or Conductivity	Quarterly (3 months)	Maximum: 2000 ppm or (2500µS/cm)
Polyphosphates (PO_4)	Monthly	10- 20 ppm
Sulfites	Monthly	50-100 ppm SO_3 80-160 ppm Na_2SO_3
Bacteria Testing	Monthly	Max: 10^3 cfu/ml (colony forming units/ ml)
Corrosion Monitoring (Coupon Test)	Bi-Annually (6 months)	Iron: max. 0.5 mils/ year Copper: max. 0.2 mils/ yr
Corrosion Inhibitor Residual	Monthly	Defined By Consultant

Steam Systems with Re-circulating Water

Chemistry Tests	Frequency of Test	Optimum Operating Ranges
Total Hardness Concentration	Daily or 3 times/week	Less Than 2 ppm $CaCO_3$
Feed water pH	Daily or 3 times/week	10.5-11.5
Feed Water Conductivity or TDS	Daily or 3 times/week	1500 - 3000 ppm (2000 – 4000 µS/cm)
Condensate Return pH	Daily or 3 times/week	8.5-9.5 pH
Condensate Return Conductivity or TDS	Daily or 3 times/week	40 ppm (50 µS/cm)
Makeup Water Conductivity	Weekly	40-600 mmHOS (30-400 ppm)
Hydroxide Alkalinity	Daily or 3 times/week	150-300 ppm $CaCO_3$
Total Alkalinity	Auto Chem Feed: Daily, Weekly	<700 ppm $CaCO_3$
Sulphite	Daily or 3 times/week	30-60 ppm SO_3 50 ppm Na_2SO_3
Steam Drum Scale Inhibitor Residual	Auto Chem Feed: Daily, Weekly	Defined By Consultant
Steam Drum Oxygen Scavenger Residual	Auto Chem Feed: Daily, Weekly	Defined By Consultant

6.0 Alternatives to Chemical Water Treatment (Reserved)

~~There are many alternative non-chemical methods to treating closed and open loop cooling and hot water systems. Not all alternatives on the market have been proven to be effective so carefully consider products that promise too much. The products listed below have been used in many systems and have been an effective means of non-chemical water treatment. There are numerous practical studies that can be referenced, when making a decision for or against either of these non-chemical water treatments.~~

6.1 Pulsed Electromagnetic Fields (Reserved)

~~This chemical free water treatment system uses a pulsed electromagnetic field to treat water. The common application of this technology is on open loop water processes subject to scale, corrosion, bio-fouling or bacterial contamination. Typical applications include open process water~~

loops, cooling towers and fountains. The technology originated in the food and beverage industry as an FDA approved means for water sterilization.

The principal of operation is to generate a pulsating magnetic field around a Section of pipe in the water process system. Each generated electromagnetic wave varies in amplitude and frequency and as the wave decays harmonics are created that can be measured in the megahertz range. It is this harmonic wave that is used to treat the water.

The harmonic wave alters the minerals; i.e. Calcium Carbonates, electrical charge causing the minerals to clump together into finally divide particles; colloidal nucleation. The minerals concentrate due to evaporation and attract each other thus clumping together into fine particles. The minerals then precipitate out of solution as a non-adhesive powder in the cooling tower basin rather than on the inside of the piping and heat transfer surfaces as scale. The powder is then carried off in the water discharged from the cooling tower during blow-down.
This pulsed electromagnetic field technology also has an effect on biological organisms, such as bacteria. The effect is described by two processes known as electroporation and encapsulation. Electroporation is the electromagnetic pulse causes damage to the cell membrane of biological organisms by repeatedly exposing it to an electromagnetic field. This inhibits the reproductive ability of the bacteria thus exhausting their ability to multiply. Encapsulation is the process of calcium carbonate precipitates surrounding and encapsulating the biological organisms in the condenser water. This prevents bio-fouling and bacteria from accumulating in open water loops. Eliminating the need for oxidizing biocides; which are corrosive substances such as bleach, chlorine and bromine, directly reduces the predominance for corrosion within cooling towers.

The cycles of concentration of the process loop are increased; therefore the environment becomes more alkaline which reduces the rate of corrosion. Increased cycles of concentration equal a reduction in system blow downs which saves water and water costs. Monitoring of pH and conductivity should still be conducted on a daily or weekly basis. The installation of this system requires the installation of a conductivity sensor to monitor water basin conductivity and automatic blow-down controls. Cooling tower systems using this non-chemical water treatment system typically average less than 2 mils per year, which is an industry standard. Below 2 is considered very good with, 2 to 5 being acceptable. Corrosion coupon test should be conducted on a quarterly basis.

6.2 Ozone Generators (Reserved)

Ozone generators have been used for portable drinking water sterilization for over two decades, to kill bacteria and other bio growth in water. This method of water sterilization is used to replace the use chlorination as a water purification method. The applications of Ozone generation for water treatment have expanded to open loop cooling water systems. They are usually installed at the cooling tower of the open loop water. Cooling tower manufacturers and water treatment companies offer Ozone generators as a replacement for chemical treatment. Monitoring of pH, conductivity and bacteria testing should still be conducted on a daily or weekly basis and monthly. The installation of this system requires the installation of a conductivity sensor to monitor water basin conductivity and automatic blow-down controls.

The untreated water enters the Ozone generation system and treated water is introduced back into the open loop system at the cooling tower. Ozone generator units produce Ozone by one of three possible methods; sending dried oxygen enriched air through an electrode, ultraviolet irradiator, or cold plasma. The most common method used for cooling water applications is the electrode method. The size of the generation unit is based on the size of the cooling water system and will be specified by the manufacturer. In addition, Ozone generation units require a system to clean

~~and remove the humidity from the air. The air dryer and de-humidifier system require routine maintenance and should be conducted by the manufacturer or qualified maintenance personnel, while the unit is off.~~

~~Ozone is a strong oxidizer since it is an unstable three atom (tri-automic) oxygen molecule. Oxygen molecules are naturally diatomic (two atom) molecules at atmospheric pressure and are necessary for life. Ozone will naturally discard its additional oxygen molecule to form a stable diatomic oxygen molecule. Leaving a highly reactive oxygen atom, this atom will destroy bacteria, biological organisms and it eliminates phenols (odor causing organic compound) through oxidation. An Ozone generator should not be installed in any occupied space because it is considered a toxic gas, according to the U.S. Environmental Protection Agency (EPA) and Food & Drug Administration (FDA). It is regulated because the same chemical properties that allow ozone to react with organic compounds outside the body give it the same ability to react similarly with organic compounds that makeup the body.~~

EXHIBIT 10

J.10. Energy & Water Operational Performance Targets
(Reserved)

This document presents the Energy and Water Operational Performance Targets for facilities covered by this contract.

The Energy Independence and Security Act of 2007 (Public Law 110-140) requires Federal agencies to improve energy efficiency by 30% by end of FY 2015 as compared to the 2003 baseline (while targeting an annual reduction in energy use of roughly 3%). Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance mandates Federal agencies reduce potable water use intensity relative to their 2007 baseline by 26% total reduction by FY2020 (while targeting an annual reduction in water use of roughly 2% annually).

To comply with these mandates GSA has initiated internal Regional Targets on an annual basis so that the overall agency effort is successful. Each year a new internal Regional Target is established by the Energy Center of Expertise and each region is responsible for meeting that target. Within each region, it is up to the Regional Energy Coordinator, in collaboration with the Property Manager and the O&M Contractor, to establish performance targets for each facility to ensure that the Regional Targets are met. To meet the regional objective, separate but reasonable and achievable reduction targets will be set for each building taking into account many parameters and circumstances such as historical energy and water usage, climate, age, performance, capital projects, and other mutually agreeable factors. Further, the energy and water performance targets established below are to be revisited and revised as appropriate for each contract extension period, or as other major events may warrant.

These energy and water performance targets are to be accomplished simultaneously to GSA's overall quality workplace/tenant satisfaction goals.

Energy Performance Targets

The energy performance target for this building, which is the sum of all building energy uses (electricity, natural gas, purchased steam/high temperature hot water, purchased chilled water, fuel oil, and any other purchased or site-generated energy) used in the 12-month contract period, has been established to support regional objectives in meeting Federal mandates. The energy usage index (EUI) measured in Btu/GSF (British thermal units/gross square foot) is the standard unit of measurement for tracking energy consumption. The GSA Regional Energy Coordinator has been consulted to determine the most practical and achievable energy performance target for this building.

The annual energy performance target for the buildings identified in Appendix A is 49,500 Btu/GSF as measured by the EUAS utility bill data. Historical building energy use intensity data for the most recent 3 years are included in Appendix A (Building Energy Use History). This historical data is intended to provide a relative measure of the building's current energy usage and overall annual usage trends.

Contractor energy efficiency performance will be monitored through the monthly progress reports (see section C.11, Monthly Progress Reports), monthly tracking against the Contractor-developed Building Energy and Water Efficiency Use Plan (see section C.21.6, Energy and Water

Efficiency), and evaluated over the full 12-month contract term to determine success in meeting the building energy performance target. GSA recognizes that there are factors/events that will impact the overall measured building energy performance, that many of these factors/events are outside the Contractor's control, and that there may be resulting impacts, both negative and positive. These factors/events will be considered by GSA in evaluating the Contractor's energy efficiency performance. It is the Contractor's responsibility to provide timely data analysis, and summaries of findings and recommendations to GSA for issues that impact the building's energy performance.

Water Performance Targets

The annual water performance target for this building has been established to support regional objectives in meeting Federal mandates for potable water use. The water usage index measured in gal/GSF (gallons/gross square foot) is the standard unit of measurement for tracking water consumption. (Note that the gross square footage used for both the energy and water usage indexes are the same.) The GSA Regional Energy Coordinator has evaluated the water usage data to determine the most practical and achievable target to meet the annual regional targets.

The annual water performance target for the buildings identified in Appendix is 3 gal/GSF as measured by the EUAS utility bill data. Historical building water use intensity data for the most recent 3 years are included in Appendix B (Building Water Use History). This historical data is intended to provide a relative measure of the building's current water usage and overall annual usage trends.

Contractor water efficiency performance will be monitored through the monthly progress reports (see section C.11, Monthly Progress Reports), monthly tracking against the Contractor-developed Building Energy and Water Efficiency Plan (see section C.21.6, Energy and Water Efficiency), and evaluated over the full 12-month contract term to determine success in meeting the building water performance target. GSA recognizes that there are factors/events that will impact the overall measured building water performance, that many of these factors/events are outside the Contractor's control, and that there may be resulting impacts, both negative and positive. These factors/events will be considered by GSA in evaluating the Contractor's energy efficiency performance. It is the Contractor's responsibility to provide timely water usage data, data analysis, and summaries of findings and recommendations to GSA for issues that impact the building's water performance.

APPENDIX A – BUILDING ENERGY USE HISTORY (RESERVED)

Table A-1. Building Energy Use Intensity History (Total Building Energy Use Intensity – BTU/GSF)

	FY 2003 Baseline	FY 2015 Goal	FY 2012	FY 2013	FY 2014
Columbus	69,747	48,823	76,888	78,142	86,237
Santa Teresa	71,838	50,287	83,518	98,797	81,525
Fort Hancock	159,919	111,943	162,175	168,388	184,403
Armendariz Courthouse	N/A (2011)	46,708	61,593	62,099	57,900
White Federal Building	35,620	24,934	27,235	24,734	24,377
Historic Courthouse	52,674	36,872	29,470	33,610	40,109
DCL	N/A (2004)	116,119	114,218	133,672	141,071
PDN	163,169	114,218	133,672	129,040	133,296
Marfa	75,377	52,764	78,154	62,019	73,300
T&G	N/A (2014)	N/A	N/A	N/A	N/A
BOTA	80,632	56,442	96,671	89,256	85,469
Ysleta	78,308	54,816	88,355	85,441	85,306

APPENDIX B – BUILDING WATER USE HISTORY (RESERVED)

Table B-1. Building Water Use Intensity History (Building Water Use Intensity – GAL/GSF)

	FY 2007 Baseline	FY 2015 Goal	FY 2012	FY 2013	FY 2014
Columbus	19.990	17.005	15.738	15.473	17.792
Santa Teresa	54.109	46.031	34.559	31.670	49.196
Fort Hancock	27.971	23.795	15.080	14.715	13.221
Armendariz Courthouse	N/A (2011)	27.606	19.926	18.458	18.496
White Federal Building	4.759	4.048	1.738	1.210	.923
Historic Courthouse	16.662	14.174	10.639	11.588	10.932
DCL	28.207	23.996	13.673	12.642	21.929
PDN	50.712	43.141	37.108	40.580	39.494
Marfa	55.938	47.586	69.802	61.960	62.065
T&G	N/A	N/A	N/A	N/A	N/A
BOTA	16.979	14.444	19.839	16.488	7.102
Ysleta	8.642	7.352	9.589	8.625	9.268

EXHIBIT 11
J.11. Energy & Water Efficiency Use Plan
(Reserved)

BACKGROUND: The Energy Independence and Security Act of 2007 (Public Law 110-140) requires Federal agencies to improve energy efficiency by 30% by end of FY 2015 as compared to the 2003 baseline (while targeting an annual reduction in energy use of roughly 3%). Executive Order 13514, Federal Leadership in Environmental, Energy, and Economic Performance mandates Federal agencies reduce potable water use intensity relative to their 2007 baseline by 26% total reduction by FY2020 (while targeting an annual reduction in water use of roughly 2% annually).

The report on energy and water efficiency use plan will be completed per the requirements of Section C.21.6, Energy & Water Efficiency, of the O&M services Contract. The Contractor will complete and submit to the Property Manager the reporting template at the beginning of the contract using information from the Annual Energy and Water Efficiency Report as available see Exhibit 13). The Property Manager will review the Contractor's annual report and meet with the Contractor to review proposed actions for the upcoming year and prioritize actions for the next Contract year that will further advance energy and water efficiency in the building. GSA recognizes that there are factors/events that will impact the overall measured building energy performance, that many of these factors/events are outside the Contractor's control, and that there may be resulting impacts, both negative and positive. These factors/events will be considered by GSA in evaluating the Contractor's energy efficiency performance plan.

DATA SOURCES: Contractor shall make use of the previous contract years' energy and water efficiency monthly and annual reports and the Energy & Water Operational Performance Targets for the development of the use plan.

PURPOSE: The purpose of this document is to clearly identify yearly building-specific energy and water reduction measures recommended by the contractor. These recommendations will establish a plan of action for the contract year and be sanctioned by GSA in consultation with the Regional Energy Coordinator. This plan will identify how the energy and water reduction measure will be pursued each month which will be monitored through the monthly progress reporting requirements of sections, C.21.6 and C.11.

MINIMIUM RPORTING ELEMENTS: Minimum reporting elements are provided below:

1. Summary of annual use by resource –target 12 month use and comparison against previous 12 month period.

    a. Significant energy and water efficiency actions/measures completed in the last year that should be considered for the new contract year.
2. Additional recommendations for improvement in the next Contract year – with consideration to the following
    a. Changes to operations practices such as
        i. Equipment and/or building scheduling
        ii. Set points

iii. Trend report assessments

b. Plant or equipment changes for
    i. Low-cost/site funded measures
    ii. Project funding

c. Contractor/Property Manager coordination and communication

3. Identify support actions needed from GSA to assist in the energy and water efficiency efforts.

Attachment 1 – Energy and Water Efficiency Use Plan Template

(Reserved)

CONTRACT INFORMATION – to be completed by Contractor in fields provided

Contract number:

Building number, name and address:

Building annual energy performance target: Btu/GSF

Building annual water performance target: Gal/GSF

Dates covered in this report:

Report submitted by (name of Contractor, name of individual responsible for follow-up actions):

Date submitted:

CONTRACTOR REPORTING ELEMENTS – to be completed by Contractor in fields provided

1. Use by resource – For each purchased utility resource, provide the use for the most recent EUAS reporting period for each utility, and the corresponding reporting period from the previous year in the table below.

Resource (please note units)	**Billing Period** (enter dates for the most recent EUAS billing for the corresponding utility)	**Yearly Use Previous Contract Year**	**Target Use Current Contract Year**
Electricity (kWh)			
Water (kgal)			
Steam (mmBtu)			
Natural gas (CCF)			
Total Energy (KBtu)			

2. Significant energy and water efficiency actions/measures completed in the last year that should be considered for the current year.

Identify previous overtime utility requests and verify current year request.

3. Additional recommendations for improvement in the next Contract year – with consideration to the following
    a. Changes to operations practices such as
        i. Equipment and/or buildings scheduling
        ii. Set points
        iii. Trend report assessments
    b. Plant or equipment changes for
        i. Low-cost/site funded measures
        ii. Project funding
    c. Contractor/Property Manager coordination and communication

4. Identify support actions needed from GSA to assist in the energy and water efficiency efforts.

GSA REVIEW AND RESPONSE ELEMENTS – to be completed by property manager in the fields provided

GSA1. GSA reviewing official:

GSA2. Date reviewed by GSA:

GSA3. Comments to Contractor:

EXHIBIT 12
J.12. Energy and Water Efficiency Monthly Report
(Reserved)

BACKGROUND: This energy and water efficiency report is to be completed per the requirements of section C.21.6, Energy & Water Efficiency, of the O&M services contract. The Contractor shall use this report template and submit completed reports as part of the monthly report to the Property Manager.

The primary objectives of this report are twofold. First, to encourage the Contractor to regularly review and manage their efficiency efforts towards achieving the performance targets established in Energy & Water Operational Performance Targets, and to optimize building performance. Second, to provide information that generates regular discussion with the Property Manager on the energy and water efficiency efforts. Together these objectives will help the Contractor and Property Manager work in a collaborative manner to improve the operational efficiency of the building by addressing current and emerging issues, and developing mid- and long-term plans that will optimize building and Contractor performance. Examples of potential collaborative outcomes include identification of roles and actions for GSA to engage tenants in, such as reducing overtime utility requests, reduction of off-hour plug loads, or even purchase and installation of equipment sized to efficiently meet the off-hour loads; identification of operational changes that can reduce energy and water use while still meeting tenant requirements such as temperature set points and equipment on/off schedules; and identification of potential prospectus-level projects. These types of actions will ultimately benefit the Contractor performance by meeting or exceeding energy and water use targets. GSA will benefit by reducing utility costs, achieving agency energy and water efficiency goals, and overall improvement in building performance including system reliability and occupant comfort. Building tenants will benefit from improved building comfort, systems reliability, and reduction in the overall cost to lease space.

Note that information provided in the report will be used to support the annual building energy and water efficiency report.

This document includes the following three attachments:

- Attachment 1 – Energy and Water Efficiency Reporting Template. The Contractor shall use this template to complete the energy and water efficiency report sections for “Contract Information” and “Contractor Reporting Elements.” The GSA Property Manager shall complete the section “GSA Review and Response Elements.”

- Attachment 2 – Clarification for Completing Energy and Water Efficiency Report. This attachment provides additional detail on the types of information to be included in the individual reporting elements found in the template.

- Attachment 3 – Example Energy and Water Efficiency Report. This attachment is included to show users’ what a completed report can look like.

INSTRUCTIONS: The Contractor shall complete the required fields in this report (see Attachment 1, Energy and Water Efficiency Reporting Template) and forward the completed report to the Property Manager by the 5th working day of the subsequent month. The Property Manager shall review the

submitted report; meet with the Contractor to discuss identified issues, findings, and recommendations; complete the report fields in the section "GSA Response;" and provide a copy of the GSA response to the Contractor. Attachment 2, Clarification for Completing Energy and Water Efficiency Report, provides the additional detail and clarifications to assist in completing the report template.

CONTRACT INFORMATION – to be completed by Contractor in the fields provided

Contract number: Field for Contractor provided in template

Building number, name and address: Field for Contractor provided in template

Building annual energy performance target: Field for Contractor provided in template

Building annual water performance target: Field for Contractor provided in template

Dates covered in this report: Field for Contractor provided in template

Report submitted by (name of contractor, name of individual responsible for follow-up actions): Field for Contractor provided in template

Date submitted: Field for Contractor provided in template

CONTRACTOR REPORTING ELEMENTS – to be completed by Contractor in the fields provided.

1. Monthly resource use – For each purchased utility resource, provide the use for the most recent EUAS reporting period for each utility, and the corresponding reporting period from the previous year in the table below. Field for Contractor below.

Resource (please note units)[a]	**Billing Period** (enter dates for the most recent EUAS billing for the corresponding utility)	**Monthly Use - Current Year**	**Monthly Use - Previous Year**
Electricity (kWh)[b]			
Electric demand (kW)			
Water (gal)[c]			
Steam (mmBtu)[d]			
Natural gas (CCF)[e]			

Notes:

[a] Units listed in this table are standard units. Should different units be reported, the Contractor shall clearly label the units being used. The same units shall be used for both the current and previous year values reported.

[b] Electricity shall be reported in kWh, the standard units of electric energy. The standard conversion for kWh to Btu is 3,413 Btu per 1 kWh.

[c] Water is typically billed in thousands of gallons (kgal). However, water should be reported in gallons (gal) on this form.

[d] Steam usage is typically reported in millions of Btus (mmBtu). Other units must be approved by the Property Manager.

[e] Natural gas can be metered/reported in hundreds of cubic feet (CCF). The standard conversion for CCF to Btu is 1,028 Btu per CCF.

2. Verification of building operations practices per the building operating plan – for each element below, verify if the operations practices are being followed, and list the date(s) these practices were verified.

    a. Operating schedule for HVAC systems – address all systems that apply: Field for Contractor provided in template
    b. Operating schedule for interior lighting systems – address all systems that apply: Field for Contractor provided in template
    c. Operating schedule for exterior lighting systems: Field for Contractor provided in template
    d. Summarize overtime utility requests and verify control settings were returned to original/desired setting: Field for Contractor provided in template
    e. Summarize building space temperatures at locations and times established by the Building Manager: Field for Contractor provided in template

3. Analysis or completion of physical changes to plant and/or equipment resulting in reduced energy and/or water use. Field for Contractor provided in template

4. Operations changes resulting in reduced or increased energy and/or water use. Field for Contractor provided in template

5. Identify issues and their potential impact on the building's energy and/or water performance. Field for Contractor provided in template

6. Overall energy and water use performance trend assessment. Field for Contractor provided in template

7. Planned energy and water efficiency actions for the next reporting period. Field for Contractor provided in template

8. Identify support actions needed from GSA to assist in the energy and water efficiency efforts. Field for Contractor provided in template

GSA REVIEW AND RESPONSE ELEMENTS – to be completed by Property Manager in the fields provided

GSA1. GSA reviewing official: Field for Property Manager provided in template

GSA2. Date reviewed by GSA: Field for Property Manager provided in template

GSA3. Comments to Contractor: Field for GSA provided in template

Attachment 1 – Energy and Water Efficiency Reporting Template
(Reserved)

CONTRACT INFORMATION – to be completed by Contractor in fields provided

Contract number:

Building number, name and address:

Building annual energy performance target: Btu/GSF

Building annual water performance target: Gal/GSF

Dates covered in this report:

Report submitted by (name of contractor, name of individual responsible for follow-up actions):

Date submitted:

CONTRACTOR REPORTING ELEMENTS – to be completed by Contractor in fields provided.

1. Monthly resource use – For each purchased utility resource, provide the use for the most recent EUAS reporting period for each utility, and the corresponding reporting period from the previous year in the table below.

Resource (please note units)[a]	**Billing Period** (enter dates for the most recent EUAS billing for the corresponding utility)	**Monthly Use - Current Year**	**Monthly Use - Previous Year**
Electricity (kWh)[b]			
Electric demand (kW)			
Water (gal)[c]			
Steam (mmBtu)[d]			
Natural gas (CCF)[e]			

Notes:

[a] Units listed in this table are standard units. Should different units be reported, the Contractor shall clearly label the units being used. The same units shall be used for both the current and previous year values reported.

[b] Electricity shall be reported in kWh, the standard units of electric energy. The standard conversion for kWh to Btu is 3,413 Btu per 1 kWh.

[c] Water is typically billed in thousands of gallons (kgal). However, water should be reported in gallons (gal) on this form.

[d] Steam usage is typically reported in millions of Btus (mmBtu). Other units must be

approved by the Property Manager.

[e] Natural gas can be metered/reported in hundreds of cubic feet (CCF). The standard conversion for CCF to Btu is 1,028 Btu per CCF.

2. Verification of building operations practices per the building operating plan – for each element below, verify if the operations practices are being followed, and list the date(s) these practices were verified.

   a. Operating schedule for HVAC systems
      Completed: Yes ☐ No ☐ Date ☐

   b. Operating schedule for interior lighting systems
      Completed: Yes ☐ No ☐ Date ☐

   c. Operating schedule for exterior lighting systems
      Completed: Yes ☐ No ☐ Date ☐

   d. Summarize overtime utility requests and verify control settings were returned to original/desired setting.

      Summary:

      Timely controls settings return completed: Yes ☐ No ☐

   e. Summarize building space temperatures at locations and times established by the Property Manager.

      Summary:

3. Analysis or completion of physical changes to plant and/or equipment resulting in reduced energy and/or water use.

   Summary:

4. Operations changes resulting in reduced or increased energy and/or water use. .

   Summary:

5. Identify issues and their potential impact on the building's energy and/or water performance.

   Summary:

6. Overall energy and water use performance trend assessment.

   Summary:

7. Planned energy and water efficiency actions for the next reporting period.

   Summary:

8. Identify support actions needed from GSA to assist in the energy and water efficiency efforts.

   Summary:

GSA REVIEW AND RESPONSE ELEMENTS – to be completed by Property Manager in the fields provided

GSA1. GSA Reviewing Official:

GSA2. Date reviewed by GSA:

GSA3. Comments to Contractor:

Summary:

Attachment 2 – Clarification for Completing Monthly Energy and Water Efficiency Report (Reserved)

This attachment provides clarification on the types of information requested in the Monthly Energy and Water Efficiency Report. Entries in this clarification correspond to the numbered elements in the report template.

CONTRACTOR REPORTING ELEMENTS

1 Monthly resource use (i.e., electricity, natural gas, etc.) – complete the table in the reporting template by providing the most recent monthly usage information available from the EUAS. Note that in cases where the building is connected to the GSA ION EES, the Property Manager and Contractor may agree to use this data instead. (The advantage of the EES data is that the data is available in real-time while the EUAS data are at least 1 month old before they are available.) Contractors must make sure that the use data is entered in the correct units and that these units are either the default units used in the template or they are clearly called out in the table.

2 Verification of building operations practices per the building operating plan – for each element below, verify if the operations practices are followed, and list the date(s) these practices were verified.

a. Operating schedule for HVAC systems – address all systems that apply. This reporting element intends to address the major HVAC systems. Consult with the Property Manager if clarification is needed to identify the major HVAC systems. Provide verification that each of the identified major HVAC systems is operated in accordance with the building operating plan. Identify exceptions and their causes.

b. Operating schedule for interior lighting systems – address all systems that apply. This reporting element intends to address the major interior lighting systems. Consult with the Property Manager if clarification is needed to identify the major indoor lighting systems. Provide verification that each of the identified major lighting systems are operated in accordance with the building operating plan. Identify exceptions and their causes.

c. Operating schedule for exterior lighting systems. Provide verification that each of the exterior lighting systems is operated in accordance with the building operating plan. Identify exceptions and their causes.

d. Summarize overtime utility requests and verify control settings were returned to original/desired settings. This reporting element intends to verify that the building energy using systems used to accommodate overtime requests are returned to their original settings at the expiration of the overtime utility request. All requests for overtime utilities should be included in this summary; each summary entry should include the date the control settings were returned to their original/desired settings. "Long-term" overtime requests should be identified in the reporting under element 5 below.

e. Summarize average building/space temperatures in the following locations – the Property Manager shall provide to the Contractor a list of locations for temperature monitoring along

with instructions for frequency of monitoring. Because temperature monitoring can be helpful in identifying HVAC systems that are not shutting-down or starting-up as appropriate for the building operating schedule, temperature monitoring is encouraged during occupied and unoccupied hours. Note also that space temperatures are also used to evaluate overall HVAC system operations and correct temperature set points.

3 Analysis or completion of physical changes to plant or equipment resulting in reduced energy and/or water use. Examples for inclusion are listed below.

- Assess/verify need for equipment replacement – section C.13 (Equipment Condition Assessment) of the O&M services contract states "the Contractor shall complete and submit to the CO or designee an itemized equipment condition assessment with their recommendation for equipment or system upgrades or replacements (that have reached the end of their life-cycle) …" Energy and water efficiency opportunities identified in the condition system assessment should also be listed in this report.
- Use of Energy Star® and FEMP covered products
- Size replacement products and/or identification of different technology approaches to accomplish the same objective

4 Operational change resulting in reduced or increased energy and/or water use. Examples are listed below. Note cases where changes were made at the request of the building occupants/tenants (please identify if possible).

- Revise equipment control procedures
- Reduce equipment runtime
- Optimize chilled water supply temperature and differential temperature reset
- Optimize static pressure set point
- Delamp overlit areas such as corridors and offices

5 Identify issues and their potential impact on the building's energy and/or water performance. Examples include

- Increase/decrease in overtime utility requests – because overtime utility use represents a significant additional operational cost, GSA would like to better understand what the building and tenant needs are, and identify potential options to reduce these cost impacts. For example, in some cases the installation of a local/small packaged air conditioning unit to satisfy overtime tenant needs can be considered as an alternative to operating the central plant chiller at a very low load. The Contractor is encouraged to look at and propose potential solutions to the Property Manager. Also, monitoring overtime utility requests can serve as a reminder to operating staff to verify that system overrides put in place to accommodate the overtime request need to be returned to their correct normal setting immediately after the request has been fulfilled.
- Extreme weather – very hot, very cold, weather closures, or unseasonably mild
- Major equipment/systems failures
- Tenant move-out (decreased occupancy) or move-in (increased occupancy)
- New building loads from tenants – data centers added/increased, high intensity equipment, etc.

6 Overall performance trend assessment. Review the events/actions throughout the reporting period and provide an assessment of the overall energy and water performance. This assessment should make use of the EUAS and ION EEM data as available and appropriate.

7 Planned and/or proposed energy and water efficiency actions for the next reporting period. Identify planned actions, such as those listed as examples above that are anticipated to take place during the next reporting period and, as available, provide supporting information on the potential im-

pacts. Note that agreement/approval from the Property Manager should be obtained prior to proceeding with changes.

8 Identify actions required from GSA to assist in the energy and water efficiency efforts. Examples of such actions may include reviewing and/or responding to Contractor submitted requests for action or information such as equipment information, occupant needs, or energy or water use information for previous reporting periods.

GSA REVIEW AND RESPONSE ELEMENTS

GSA1. GSA Reviewing Official

GSA2. Date reviewed by GSA

GSA3. Comments to Contractor. The Property Manager is to review each monthly report to identify areas of progress, concerns, and need (e.g. specific information or support requests from the Contractor). This review should also address the planned and/or proposed actions submitted by the Contractor, as well as the listed actions required from GSA (see Contractor Reporting Elements 7 and 8 above). The Property Manager should meet with the Contractor each month to discuss these areas of progress, concern, and need. Before meeting with the Contractor, the Property Manager may seek additional technical support within GSA regarding issues of concern, and include these experts in the dialogue with the Contractor if thought to be beneficial. *Please remember* the objective of these monthly report reviews and meetings is to promote an ongoing dialogue between the Contractor and GSA to enable proactive problem solving and avoid end-of-the-year problems in assessing the Contractor's performance.

It is recommended that the Property Manager share this information with the Regional Energy Coordinator in a joint effort to collaborate on strategic planning. It is also recommended that the GSA reviewing official include in the monthly report review a summary of the rolling 12-month building performance data as generated by the EUAS (see sample below). Trends of concern against this rolling performance should be called to the attention of the Contractor.

Sample Rolling 12 month report below

Sample Data Report – Energy
(Reserved)
Building Summary for building categories : ALL
Optional Building Designation(s) :
Energy Usage is shown in Actual units - Show All Report Details
Conversion Detail = Site Use

Date : 12/11/2012 Report for the period of Floating 12 Months, Fiscal Year : 2012 Month : June
Time : 7:50:21 AM

Region :	06	Building Category : A	Building : MO0050ZZ
Building Name :	WHITTAKER COURTHOUSE 5101-KANSAS CITY NORTH	City :	KANSAS CITY
Field Office :	PMC	State :	Missouri
Service Center :	1	GSF :	753,511

		Electricity (KWH)		Demand (KW)		Steam (Thou. lbs)	
Jul	Usage	1,004,654	A	2,212	A	553	A
	Cost	$78,335	N	$21,850	A	$15,523	N
Aug	Usage	899,797	A	2,145	A	1,354	A
	Cost	$81,254	N	$22,087	A	$20,963	N
Sep	Usage	670,256	A	1,745	A	762	A

	Cost	$56,879	N	$13,472	A	$16,943	N
Oct	Usage	569,927	A	1,658	A	1,183	A
	Cost	$49,789	N	$11,604	A	$19,802	N
Nov	Usage	644,465	N	1,669	A	1,219	A
	Cost	$52,526	N	$11,681	A	$22,497	N
Dec	Usage	588,543	A	1,370	A	1,893	A
	Cost	$46,000	N	$9,589	A	$28,430	N
Jan	Usage	578,578	A	1,404	A	2,020	A
	Cost	$46,280	N	$9,827	A	$29,548	N
Feb	Usage	636,912	N	1,955	A	1,981	A
	Cost	$55,926	N	$13,683	A	$29,204	N
Mar	Usage	675,916	A	1,935	A	1,063	A
	Cost	$57,115	N	$13,543	A	$21,124	N
Apr	Usage	640,644	N	1,975	A	862	A
	Cost	$55,977	N	$13,823	A	$19,355	N
May	Usage	720,322	A	2,013	A	606	A
	Cost	$70,375	N	$19,483	A	$17,101	N
Jun	Usage	967,002	N	2,010	A	918	A
	Cost	$79,609	N	$20,697	A	$19,848	N

Total	Usage	8,597,016	22,091	14,414
	Cost	$730,065	$181,339	$260,338

* Demand KW and cost are information items only; demand cost is also included in KWH cost.

* RenElec, RenGas are information items only; RenElec, RenGas usage and cost are also included in electricity and gas usage and cost respectively.

Actual Data Report - Energy

Building Summary for building categories : ALL
Optional Building Designation(s) :
Energy Usage is shown in Actual units - Show All Report Details
Conversion Detail = Site Use

Date : 12/11/2012
Time : 7:50:21 AM

Report for the period of Floating 12 Months, Fiscal Year : 2012 Month : June

Region :	06	Building Category : A	Building : MO0050ZZ
Building Name :	WHITTAKER COURTHOUSE 5101-KANSAS CITY NORTH	City :	KANSAS CITY
Field Office :	PMC	State :	Missouri
Service Center :	1	GSF :	753,511

Month	Remarks
Jul	
Aug	
Sep	
Oct	enter demand

Nov	
Dec	
Jan	
Feb	
Mar	
Apr	
May	
Jun	

Attachment 3 – Example
Energy and Water Efficiency Report – Contractor Input
(Reserved)

Note to users: This sample report is based on the Energy and Water Efficiency Reporting Template. There are minor variances between this example and the temple. These minor variances are acceptable provided all the information requested in the template is provided.

Energy and Water Efficiency Monthly Reporting Sample
(Reserved)

CONTRACT INFORMATION:_____
Contract number: _____

Building number, name and address: _Denney Federal Bldg
_100 Centennial Mall North
_Lincoln, NE 68508

FY12 Building energy performance target: 60,923 Btu/GSF,
Actual rolling 12 months EUI as of August 2012, 56,434 Btu/GSF,

FY12 Building annual water performance target: 14.61 Gal/GSF,
Actual rolling 12 months water use as of August 2012, 12.41 Gal/GSF

Dates covered in this report: August 2012

Report submitted by: Joe Jones, O&M Contract Supervisor

Date submitted: September 7, 2012

CONTRACTOR REPORTING ELEMENTS:

5. Use by resource – For each purchased utility resource, provide the use for the most recent EUAS reporting period for each utility, and the corresponding reporting period from the previous year in the table below.

Resource (please note units)	**Billing Period** (enter dates for the most recent EUAS billing for the corresponding utility)	**Monthly Use Current Year**	**Monthly Use Previous Year**
Electricity (kWh)	August 2012	435,000	503,000
Electricity Demand (kW)	August 2012	1,326	1,674
Water (gal)	August 2012	698,632	996,336
Steam (mmBtu)	August 2012	NA	NA
Natural gas (CF)	August 2012	0	0

6. Verification of building operations practices per the building operating plan – for each element below, verify if the operations practices are being followed, and list the date(s) these practices were verified.

   The following were all reviewed in our meeting of October 24.

   b. Operating schedule for HVAC systems
   Completed: Yes ☐ No ☐ Date 10/24/12

   c. Operating schedule for interior lighting systems

Completed: Yes ☐ No ☐ Date 10/24/12

d. Operating schedule for exterior lighting systems
Completed: Yes ☐ No ☐ Date 10//24/12

Will re-verify operating schedules of all exterior lighting when daylight savings time goes into effect on Nov 4

e. Summarize overtime utility requests and verify control settings were returned to original/desired setting:

Standing overtime utilities scheduled for the USDA Lab – 24/7 – AHU-6. No other overtime utilities were requested this month. SSA will have overtime utilities starting in the second quarter for their annual busy season. Typical OT utility hours are extended 2 hours per day Monday through Friday and 6 hours on Saturday until April 30, 2013.

Timely controls settings return completed: Yes ☐ No ☐ Not applicable

f. Summarize building space temperatures at locations and times established by the Building Manager:

As discussed, the winter set point will be 72 +/- 2F. All areas will be set to this temperature per GSA Building Manager.

7. Analysis or completion of physical changes to plant and/or equipment resulting in reduced energy and/or water use. Use attachment if additional space is needed.

The VFDs on the chilled water and condenser water pumps are showing erratic operation. The control PID loop for these pumps is being investigated as the cause of this condition. The BAS vendor controls tech. is assisting in the analysis and reprogramming to correct this issue.

---

8. Operations changes resulting in reduced or increased energy and/or water use. Use attachment if additional space is needed.

During the dry weather and drought conditions this month, the landscaping on mall side of the building required increased watering to as much as 3 times

per week. As rainfall increases, this practice will be monitored closely to avoid over using water for irrigation purposes.

---

9. Identify issues and their potential impact on the building's energy and/or water performance. Use attachment of additional space is needed.

   During the dry weather and drought conditions this month, the cooling tower make-up water has increased. Even though water use is down substantially for the rolling 12 month period, we estimate the tower is requiring more water for the month due to increased evaporation and additional runtime during the extreme high temperatures this past month.

   ---

10. Overall energy and water use performance trend assessment.

    Overall, the rolling 12 month energy use has decreased by -10.15% as of August 2012, compared to same 12 month period last year. Completion of ARRA projects along with adjustments of runtime schedules for air-handling units and some vacant space in the building has helped to reduce electrical energy consumption. Water usage is also down by 16.77% due to new cooling towers and new control sequences for the chilled water system. We will continue to adjust the AHU runtimes to match occupancy changes to reduce the operation of the chiller plant and to reduce electrical demand.

    Planned energy and water efficiency actions for the next reporting period.

    We will continue to closely monitor increased irrigation required due to drought conditions, and closely monitor that chilled water reset controls are working to take advantage of meeting cooling needs with lowered chilled water supply temperatures going into the shoulder season.

    ---

11. Identify support actions needed from GSA to assist in the energy and water efficiency efforts.

    As discussed, GSA Building Manager is planning to meet with tenants to discuss the approved temperature ranges for office spaces to get a better understanding of the temperature range that is acceptable for all area. This should help to reduce hot/cold calls and repeat calls in many areas.

    AHU-4 continues to have operational challenges. The unit is required to run for longer hours each day to ensure that cool down is achieved when the tenants return in the morning. VAV box air flows and temperatures in the area

have been overridden to make the area as comfortable as possible. We believe this unit is not sized correctly for the area it serves and needs to be studied for refurbishment or replacement in a future capital project.

GSA REVIEW AND RESPONSE ELEMENTS – to be completed by property manager in the fields provided

GSA1. GSA Reviewing Official: _____

GSA2. Date reviewed by GSA: _____

GSA3. Comments to Contractor: _____

EXHIBIT 13
(Reserved)

J.13. Annual Energy & Water Efficiency Report

BACKGROUND: The annual report on energy and water efficiency will be completed and submitted per the requirements of section C.21.6, Energy & Water Efficiency, of the O&M services contract. The Contractor will meet with the GSA Property Manager prior to the last week of the contract expiration when the contract is not being extended, or by the 5th working day of the subsequent year startup when the contract is being extended, to review and discuss the submitted report. This discussion will address past building performance and initiate the planning of energy and water efficiency efforts for the next contract year. This information will assist the property manager and regional energy coordinator in establishing energy targets in the Operational Performance Targets (see Exhibit 10) for energy and water for the next fiscal year.

GSA is adopting this annual reporting procedure as a way to promote a collaborative relationship between GSA and the Contractor. This collaborative relationship will work to better identify and address issues and opportunities for improved energy and water efficiency, as well as overall building operations. This annual report will

- summarize actions completed during the last contract year aimed at
- energy and water efficiency, and assess relative degree of success and lessons learned;
- set operational goals for the next contract year; and
- identify and prioritize projects for the next contract year.

This document includes the following attachments:

- Attachment 1 – Annual Report on Energy and Water Efficiency Template. The Contractor shall use the template to complete the report template sections for “Contract Information” and “Contractor Reporting Elements.” The GSA Property Manager shall complete the section “GSA Review and Response Elements.”
- Attachment 2 – Clarification for Completing the Annual Report on Energy and Water Efficiency. This attachment provides additional detail on the types of information to be included in the individual reporting elements found in the template.

DATA SOURCES: Contractor shall make use of the energy and water efficiency reports that were submitted each month throughout the contract period. Contractor shall also use the most recent 12 month EUAS` data available for each individual resource and for total building resource use.

INSTRUCTIONS: The incumbent Contractor shall complete the required fields in this report (see Attachment 1, Annual Report on Energy and Water Efficiency Reporting Template) and forward the completed report to the Property Manager prior to the last week of the contract expiration. (Note that in cases where a new Contractor is starting-up, they are not required to complete this report as part of their start-up.) The Property Manager shall review the submitted report; meet with the Contractor to discuss the summary of actions and outcomes reported; develop building performance targets for the new contract period; and prioritize projects, actions, and activities that will lead to energy and water efficiency improvements for the new contract period. Attachment 2, Clarification for Completing the Annual Report on Energy and Water Efficiency, provides additional detail and clarifications to assist in completing the report template.

A new Contractor starting-up work is not required to complete and submit this annual report until the last week of the contract period. However, the new Contractor shall review the last annual report submitted by the previous Contractor and complete the reporting element 7and consider results/recommendations for development of the Energy and Water Use Plan for the next contract year and submit to the CO or their designee within the first 2 weeks of the new contract. The Contractor will then meet with the Property Manager to agree upon the first year energy and water efficiency use plan.

CONTRACT INFORMATION – to be completed by Contractor in fields provided

Contract number: Field for Contractor provided in template

Building number, name and address: Field for Contractor provided in template

Building annual energy performance target: Field for Contractor provided in template

Building annual water performance target: Field for Contractor provided in template

Dates covered in this report: Field for Contractor provided in template

Report submitted by (name of contractor, name of individual responsible for follow-up actions): Field for Contractor provided in template

Date submitted: Field for Contractor provided in template

ANNUAL REPORTING ELEMENTS – to be completed by the Contractor in fields provided. Additional guidance on completing these reporting elements is provided in Attachment 2 (Clarification for Completing the Annual Report on Energy and Water Efficiency)

1. Summary of annual use by resource – For each purchased utility resource, provide the total annual use for the last 12 months available from the EUAS. Field for Contractor, as shown below is provided in template.

Resource (please note units)[a]	**Billing Period** (enter dates for the most recent 12 month EUAS billing for the corresponding utility)	**Yearly Use Current Year**	**Yearly Use Previous Year**
Electricity (kWh)[b]			
Electric demand (kW)			
Water (gal)[c]			
Steam (mmBtu)[d]			
Natural gas (CCF)[e]			

Notes:

[a] Units listed in this table are standard units. Should different units be reported, the Contractor shall clearly label the units being used. The same units shall be used for both the current and previous year values reported.

[b] Electricity shall be reported in kWh, the standard units of electric energy. The standard conversion for kWh to Btu is 3,413 Btu per 1 kWh.

[c] Water is typically billed in thousands of gallons (kgal). However, water should be reported in gallons (gal) on this form.

[d] Steam usage is typically reported in millions of Btus (mmBtu). Other units must be approved by the Property Manager.

[e] Natural gas can be metered/reported in hundreds of cubic feet (CCF). The standard conversion for CCF to Btu is 1,028 Btu per CCF.

2. Total energy and water use for the 12-month (contract) period – Using the most recent 12 months of EUAS data from reporting element 1 above, provide the following comparisons of performance against the targets established in Exhibit 10, Operational Performance Targets):
    a. Total 12-month building energy used (Btu/GSF) versus the annual energy performance target: Field for Contractor provided for contractor in template.
    b. Total 12-month building water used (gallons/GSF) versus the annual water performance target: Field for Contractor provided in template.

3. Provide a summary of changes/actions completed over the contract period affecting energy and water efficiency. Include, where possible, an estimate of the resulting impact in terms of energy and/or water savings for the previous 12 months. Estimates may be engineering or measured (meter or BAS supported) estimates.
    a. Operational changes – to address building/equipment schedule changes, set point changes, equipment/system tune-ups, and similar energy and water intensive system controls and operations settings completed during the contract period. Narrative field provided for Contractor to complete.
    b. Building/equipment changes – to address equipment, systems, or building materials installed and/or replaced during the contract period

that would impact energy use such as window replacements, new roof-top units, and building renovation start-up or completion. Narrative field provided for Contractor to complete.

c. Occupant behavior changes – to address outcomes from occupant changes such as reductions in frequent or routine overtime utility requests and energy awareness programs. Contractor actions supporting these behavior changes should be highlighted. Narrative field provided for Contractor to complete.

4. Recommendations for the next contract period – provide a list of recommended actions that will improve energy and water efficiency that should be considered for the next contract year. Include estimates of outcomes for each recommendation, making use of supporting data and calculations when practical. Recommendations should address each operational efficiency, retrofit projects, and occupant behavior initiatives. Narrative field provided for Contractor to complete.

5. Contractor identified projects proposed – provide a summary of the Contractor identified projects that were proposed to GSA during the contract period. Summary for each project identified should include a short description of the project, estimated cost, and estimated impact on building energy and/or water use.

6. Overall Contractor assessment of performance – the Contractor will provide an assessment of their overall performance in terms of energy and water efficiency performance. At a minimum, this assessment should address each of the following:

    a. Energy and water use against the performance targets as measured and reported, as well as against the overall building operating conditions and requirements;
    b. Actions taken by the Contractor that (significantly) affected energy and water use, and the lessons learned;
    c. How the Contractor would assess their energy and water efficiency performance and why, and strengths and areas for improvement.

    Narrative fields will be provided for the Contractor to complete for each sub-element above.

7. Propose and prioritize efficiency measures – develop a list of the top priority actions that should be completed in the next contract year. Each proposed action should include the estimated cost and time to complete, and estimated impact on building energy and/or water use. Narrative field provided for Contractor to complete.

GSA REVIEW AND RESPONSE ELEMENTS – to be completed by the Property Manager in the fields provided

GSA1. GSA Reviewing Official: Field for Property Manager provided in template.

GSA2. Review Contractor annual report: Field for Property Manager provided in template.

GSA3. Confirmation of meeting between Property Manager and Contractor – date, participants, and summary of outcomes. Topics and desired outcomes – agreement on planned actions and energy and water performance targets for the next contract year – are summarized in Attachment 2 (Clarification for Completing the Annual Report on Energy and Water Efficiency): Fields for Property Manager provided in template.

Attachment 1 – Annual Report on Energy and Water Efficiency Template
(Reserved)

CONTRACT INFORMATION – to be completed by Contractor in fields provided

Contract number:

Building number, name and address:

Building 12-month energy performance target: Btu/GSF

Building 12-month water performance target: Gal/GSF

Dates covered in this report:

Report submitted by (name of contractor, and name, email, and phone number of individual responsible for follow-up actions):

Date submitted:

ANNUAL REPORTING ELEMENTS – to be completed by the Contractor in fields provided. Additional guidance on completing these reporting elements is provided in Attachment 2 (Clarification for Completing the Annual Report on Energy and Water Efficiency)

1. Summary of annual use by resource – For each purchased utility resource, provide the total annual use for the last 12 months available from the EUAS. Field for Contractor as shown below is provided in template.

Resource (please note units)[a]	**Billing Period** (enter dates for the most recent 12 month EUAS billing for the corresponding utility) (format mm/dd/yy – mm/dd/yy)	**Yearly Use Current Year**	**Yearly Use Previous Year**
Electricity (kWh)[b]			
Electric demand (kW)			
Water (kgal)[c]			
Steam (mmBtu)[d]			
Natural gas (CCF)[e]			

Notes:

[a] Units listed in this table are standard units. Should different units be reported, the Contractor shall clearly label the units being used. The same units shall be used for both the current and previous year values reported.

[b] Electricity shall be reported in kWh, the standard units of electric energy. The standard conversion for kWh to Btu is 3,413 Btu per 1 kWh.

[c] Water is typically reported in thousands of gallons (kgal). Water may also be reported in gallons (gal).

[d] Steam usage is typically reported in millions of Btus (mmBtu). Other units must be approved by the Property Manager.

[e] Natural gas can be metered/reported in hundreds of cubic feet (CCF). The standard conversion for CCF to Btu is 1,028 Btu per CCF.

2. Total energy and water use for the 12-month (contract) period – Using the most recent 12 months of EUAS data from reporting element 1 above, provide the following comparisons of performance against the targets established in Exhibit 10 (Operational Performance Targets):

    a. Total 12-month building energy used (Btu/GSF) versus the annual energy performance target:

12-month energy performance target: Btu/GSF

12-month energy use: Btu/GSF

Difference between target and actual use: Btu/GSF

    b. Total 12-month building water used (gallons/GSF) versus the annual water performance target:

12-month water performance target: gal/GSF

12-month water use: gal/GSF

Difference between target and actual use: gal/GSF

3. Provide a summary of changes/actions completed over the contract period affecting energy and water efficiency. Include, where possible, an estimate of the resulting impact in terms of energy and/or water savings. Estimates may be engineering or measured (meter or BAS supported) estimates.
    a. Operational changes – to address building/equipment schedule changes, set point changes, equipment/system tune-ups, and similar energy and water intensive system controls and operations settings completed during the contract period.

       Summary:

    b. Building/equipment changes – to address equipment, systems, or building materials installed and/or replaced during the contract period that would impact energy use such as window replacements, new rooftop units, and building renovation start-up or completion.

       Summary:

    c. Occupant behavior changes – to address outcomes from occupant changes such as reductions in frequent or routine overtime utility requests and energy awareness programs. Contractor actions supporting these behavior changes should be highlighted.

       Summary:

4. Recommendations for the next contract period – provide a list of recommended actions that will improve energy and water efficiency that should be considered for the next contract year. Include estimates of outcomes for each recommendation, making use of supporting data and calculations when practical. Recommendations should address each operational efficiency, retrofit projects, and occupant behavior initiatives

   Summary:

5. Contractor identified projects proposed – provide a summary of the Contractor identified projects that were proposed to GSA during the contract period. Summary for each project identified should include a short description of the project, estimated cost, and estimated impact on building energy and/or water use.

   Summary:

6. Overall Contractor assessment of performance – the Contractor will provide an assessment of their overall performance in terms of energy and water efficiency performance. At a minimum, this assessment should address each of the following:

    a. Energy and water use against the performance targets as measured and reported, as well as against the overall building operating conditions and requirements.

        Summary:

    b. Actions taken by the Contractor that (significantly) affected energy and water use, and the lessons learned.

    c. Summary:

    d. How the Contractor would assess their energy and water efficiency performance and why, and strengths and areas for improvement.

        Summary:

7. Propose and prioritize efficiency measures – develop a list of the top priority actions that should be completed in the next contract year. Each proposed action should include the estimated cost and time to complete, and estimated impact on building energy and/or water use.

    Summary:

GSA REVIEW AND RESPONSE ELEMENTS – to be completed by the Property Manager in the fields provided

GSA1. GSA Reviewing Official:

GSA2. Date review completed by GSA:

GSA3. Confirmation of meeting between Property Manager and Contractor – date, participants, and summary of outcomes. Topics and desired outcomes – agreement on planned actions and energy and water performance targets for the next contract year – are summarized in Attachment 2 (Clarification for Completing the Annual Report on Energy and Water Efficiency).

Summary:

Attachment 2 – Clarification for Completing the Annual Report on Energy and Water Efficiency (Reserved)

This attachment provides clarification on the types of information requested in the Annual Report on Energy and Water Efficiency. Entries in this clarification correspond to the numbered elements in the report template.

CONTRACTOR REPORTING ELEMENTS

9 Summary of annual use by resource (i.e., electricity, natural gas, etc.) – complete the table in the reporting template by providing the total resource usage using the most recent 12 months of information available from the EUAS. Note that in cases where the building is connected to the GSA ION EES, the Property Manager and Contractor may agree to use this data instead. (The advantage of the EES data is that the data is available in real-time, while the EUAS data are at least 1 month old before they are available.) Contractors must make sure that the use data is entered in the correct units and that these units are either the default units used in the template or they are clearly called out in the table.

10 The total energy use versus the reported 12-month energy use is an important measure of the Contractor's performance in addressing energy and water efficiency. GSA recognizes that throughout the year, there are events that may impact resource use both adversely and positively. For this reason, the outcome of the comparison of actual use to target use is not a pass/fail proposition. GSA will review and take into account the overall efforts of the Contractor and the range of factors that may have impacted the reported 12-month energy and water usage. Attention should be given to the following when completing these comparisons.

- The Contractor and GSA are in agreement on data that go into the 12-month usage totals for all resources
- Units of the individual energy resources used must all be converted to Btu before entering the total energy use. The conversions should make use of the conversion factors used by GSA.

11 Provide a summary of changes/actions completed over the contract period affecting energy and water efficiency, and provide estimates of their impacts. Changes/actions should be presented for each of the following categories: Operational changes, building/equipment changes, and occupant behavior changes.

Operational changes: Numerous research efforts have reported that building-wide energy savings on the order of 5 to 15% are usually available through better building operations practices. Better yet, many of these changes can also result in improved occupant comfort, increased equipment reliability, and safer operating conditions. For these reasons, GSA encourages its contractors to identify and implement (after approval) these types of measures (e.g. set points).

Measures may address overall operations and maintenance management approaches such as:

- Metered data analysis – periodic, even daily, reviews of whole building and individual major equipment (where available) energy and water use and performance including building load profiles and performance trending.
- Developing approaches for staff to identify and recommend for action, energy and water efficiency measures.
- Providing staff training in building re-tuning, energy auditing and management, water auditing and management, existing building commissioning, BAS operations, and boiler efficiency and operations.

Building/equipment operations typically offer many opportunities to improve savings usually attributed to large energy and water using systems, such as HVAC and lighting. Building/equipment operations strategies and approaches for energy and water efficiency include, but are not limited to, actions focused on scheduling, procedures, and work/systems control and optimization. Examples include ongoing commissioning/building tune-up activities and operations and maintenance best practices procedures identifying and addressing opportunities such as those listed below:

- Revising equipment control sequences
- Reducing equipment runtime
- Improving economizer operations
- Optimizing chilled water supply temperature and differential pressure reset
- Delamping overlit areas such as corridors and offices

Equipment maintenance – how well the Contractor will perform preventive, predictive, scheduled and unscheduled actions to prevent equipment failures or decline in performance with the goal of increasing efficiency, reliability, and safety. Examples might include

- Use of predictive maintenance technologies such as infrared
- thermography to (help) inspect electrical systems, mechanical systems, roofs, and insulation
- Use of actual equipment runtimes as recorded by the BAS to perform maintenance as needed instead of as scheduled
- Calibration of sensors and actuators

Numerous resources that address the topics above are available at no cost:

- Building re-tuning approach focuses on improving the operations and maintenance of (large) building controls systems. The re-tuning methodology is highly structured to identify and implement no-cost/low-cost energy savings. For more information visit http://www.pnnl.gov/buildingretuning/training.stm

- *Impact of E4 Training and Field Auditing of GSA Heartland Facilities* provides a summary of the measures taken and results realized from a building tune-up effort at multiple GSA buildings.
- GSA offers the Shave Energy program. Ask the Property Manager to contact the Regional Energy Manager to obtain more information through the password-protected Shave Energy website at https://sites.google.com/a/gsa.gov/national-shave-energy-program/
- *Operations and Maintenance Best Practices – A Guide to Achieving Operational Efficiency (Release 3.0)* outlines best practices that will help building owners and operators implement effective O&M for systems and equipment found at their facilities.

Building/equipment changes may present unique opportunities to realize energy and/or water efficiency improvements. These changes may be driven by the need to replace failed or end-of-life equipment/systems, or simply by the economics where the energy and/or water savings will "pay for" the investment of purchasing and installing the new equipment. In cases where replacement is needed because of failure, unreliable operations, or end of useful life, a replacement approach should take into consideration the efficiency opportunities available because these opportunities will not be available again until the next replacement cycle. It is for this reason that, per Federal regulation, a life-cycle cost analysis is to be completed as part of the replacement project design. Sites are strongly discouraged from using a like-in-kind replacement approach for replacement and retrofit projects because this approach relies on old and usually inefficient technologies to reduce design costs, and the perception of reduced risk when operating. GSA encourages its contractors to identify and propose replacement and retrofit projects that will improve building operations and result in increased energy and/or water efficiency. Resources available to help identify energy and water efficient products are available through Energy Star® and FEMP covered products.

Occupant behavior changes can also result in significant resource savings. One area that GSA would like to highlight is working with the building tenants to minimize the impact of overtime utility requests. The monthly energy and water efficiency report includes a section to summarize the overtime utility requests for each monthly period. This report section should capture the actions taken by the Contractor to identify and implement related opportunities that were proposed to GSA and/or initiated, such as identification of satellite equipment/systems that provide services only locally and at the tenant's expense; tenant submetering of utilities for awareness and/or tenant billing (cost allocation); coordination with the tenants on criteria for overtime utility requests; and building-wide energy awareness activities. The outcome for each of these respective actions should be characterized.

12 Recommendations for the next contract period – provide a list of recommended actions that will improve energy and water efficiency that should be considered for the next contract year. Include estimates of outcomes for each recommendation, making use of supporting data and calculations when practical. Recommendations should address operational efficiency, retrofit projects (see reporting item 5 below for additional presentation of information for retrofit projects, and occupant behavior initiatives). Examples might include new start-up and shut-down strategies, adjustment of set-points, building tune-up training and implementation, Shave Energy participation, metered data analysis, overtime utility reduction programs, etc.

13 Contractor identified projects proposed – provide a summary list of recommended projects that, based on the Contractor's estimates, can increase the energy and/or water efficiency of the building. These projects may address replacing end-of-life equipment/systems, retrofitting existing equipment/systems based on cost-effectiveness resulting from resource savings (energy, water, and/or staff time), or installing new equipment such as sensors that can support improved systems operations. At a minimum, include the following information for each proposed project: brief description of the project and its intended outcome; equipment/systems being addressed; proposed solution; estimated cost; estimated time to complete the project; estimated savings by resource; and identification of potential risks or installation issues. Background information including potential equipment information, design sketches (if available), and resource savings calculations should be available for GSA if this information is requested.

14 Overall Contractor assessment of performance – provide a summary assessment of the Contractor performance that addresses the energy and water efficiency realized in the building for the contract period. This assessment should take into account the building's performance against the established performance targets allowing for consideration given to performance variables such as weather, occupancy including overtime utility requests, major systems condition, and Contractor implemented measures. Contractor implemented measures should be summarized and assessed for their performance against estimates and overall performance. The assessment should also address the Contractor's performance against the measures agreed upon by GSA and the Contractor at the start of the contract period. Include an overall assessment of performance in terms of success, areas/opportunities for improvement, and lessons learned.

15 Propose and prioritize efficiency measures for the next contract year – provide in priority order (highest priority first) the efficiency measures that the Contractor proposes for the new contract year. Measures may be operational changes, building/equipment changes, and/or occupant behavior-based action that are intended to cost-effectively support resource efficiency improvement. Include for each proposed action the estimated cost to complete and estimated impact on building resource use. It is recommended that GSA support actions required for action implementation also be listed.

GSA REVIEW AND RESPONSE ELEMENTS

GSA1. GSA Reviewing Official:

GSA2. Date review completed by GSA:

GSA3. Confirmation of meeting between Property Manager and Contractor – date, participants, and summary of outcomes. This annual reporting process was developed to obtain these key outcomes:

- Review the Contractor's overall performance in supporting and achieving GSA's goals for energy and water efficiency. This review is accomplished by reviewing the overall energy and water use against the established targets, reviewing the actions completed during the contract year, and subjectively assessing the Contractor's overall performance. This is not intended to be a pass/fail exercise, but rather an opportunity for the Contractor and GSA to review and discuss expectations and their associated outcomes.
- Identify and prioritize energy and water efficiency actions to be completed during the next contract year. These measures will be primarily identified by the Contractor in their report recommendations, and through discussions with the Property Manager, which will take into account building plans and needs, tenant concerns, and GSA's estimate of what are reasonable and achievable targets. Outcomes should be an agreement between the Contractor and GSA on the following:
    - A prioritized list of actions to be addressed during the next contract year
    - Revised energy and water performance targets for the next contract year.

An approach to developing revised energy and water performance targets is as follows:

- Review most recent 12-month performance – Btu/GSF and Gal/GSF.
- Identify factors (independent variables) impacting energy and water use over the review period such as space vacancies, tenants moving in, extreme and/or mild weather, major equipment issues and failures, new building equipment and/or materials installed, overtime utility requests. Using estimates subjectively assess the impact of these factors.
- Identify adjustments for planned building activities during the next contract year– scheduled vacancies/move-outs, tenants moving in, planned renovation and retrofit projects, new tenant support requirements, etc.
- Estimate the energy and water use impact resulting from efficiency measures agreed upon by the Contractor and GSA during this annual review. Savings from individual measures should be based on their estimated completion date.
- Baseline consideration that takes into account the building energy and water performance against of other similar buildings. This adjustment recognizes that different buildings have different levels of efficiency opportunities available. For example, buildings achieving an Energy Star® designation (Energy Star® rating of 75 or greater) should, in general, have fewer cost-

effective opportunities than building with lower ratings. Buildings may also be compared against other similar GSA buildings as identified.

It is strongly recommended that the Property Manager engage the Regional Energy Coordinator in the annual review, prioritization, and target setting process.

EXHIBIT 14
J.14. Qualifications of Electrical Testing Technicians (ETT)

(ANSI/NETA ETT-2010 Standard for Certification of Electrical Testing Technicians)

TITLE:	**Trainee Techncian**	**Assistant Technician**	**Certified Technician**	**Certified Senior Technician**
LEVEL:	**Level I**	**Level II**	**Level III**	**Level IV**
EDUCATION AND TRAINING:	High School / GED	Safety 40 hours Electrical 160 hours	Safety 24 hours add'l Electrical 240 hours add'l	Safety 40 hours add'l Electrical 200 hours add'l
RELATED EXPERIENCE:	None	Two Years*	Five Years*	Ten Years*
TYPICAL DUTIES:	None	Generally requires direct supervision. Responsible for safety of self. Understands hazardous electrical energy control procedures.	Capable of supervising Levels I and II. Routine and moderately complex projects. Record keeping. Safety of others. Switching. Evaluations.	Supervises large projects, multiple crews. Works independently. More complex investigations, tests, and evaluations.
TYPICAL ACTIVITIES:	Simple assistance. Simple measurements. Test equipment set up and removal. Cleaning.	Assists. Inspects. Tests. Data collection. Test for de-energized locked out/tagged out equipment.	Lockout/Tagout, safety grounding. Test for de-energized medium-voltage equipment. Performs moderately complex tasks. Interacts with other skills and operations.	Corrects system failures. Performs very complex tests. Interacts with engineers and managers. Writes reports.
EXAMINATION:	By employer	By certifying organization, 70% minimum score	By certifying organization,70% minimum score	By certifying organization, 70 % minimum score

NOTE: Candidates for Levels II, III, IV must have met the qualifications for all previous levels.
*** Completion of two or more years of technical education in an electrical field shall be equivalent to a maximum of one year of experience.**

EXHIBIT 15

J.15. Miscellaneous Best Practices
Shave Energy

The Shave Energy Program is designed to assist field offices to systematically identify and implement simple no cost energy efficiency measures. The primary objective of the program is to identify no cost inefficiencies in operations, make appropriate adjustments, and reduce total energy consumption at participating facilities, on average, by 10% per year. Program participants will use various audit procedures, tools, templates, strategies, educational tools and reference materials to implement a variety of best practices. These include optimizing HVAC & lighting schedules, controls, and equipment, implementing energy- and comfort-optimized thermal set points and lighting levels, demand shedding, and tenant engagement.

Field office personnel will be essential to the success of the program and will be pivotal to reducing cost significantly through no cost means. They will be supported by regional super users and Central Office contract with technical support.

The Miami Service Centers participated in the *unintentional* Shave Energy pilot program last year and the results are very promising. The Service Center, under the leadership of Don Rollins, implemented numerous no cost items into its portfolio and the benefits were profound as they maintained reductions over a one year period.

Over the past year (2011), the Service Center reduced energy consumption by 4,916 BTU/GSF and a 15% reduction in total KWH usage (equivalent to almost 6 million KWH). This reduction is very significant and equivalent to "not using" 161,294 gallons of gas. The cost benefit associated with these reductions is also significant as it reduced total energy cost by $541,419 in FY11 KWH dollars.

The Wilkie Ferguson facility has also seen phenomenal success on its own as it reduced its usage by 15,369 BTU/GSF over the last year. The property manager reduced total consumption by 3.5 million KWH or 29% over the last year. This reduction is equivalent to "not using" 95,093 gallons of gas or removing 1,521 cars from the road. The cost savings associated with these reductions is $314,861 in FY11 KWH dollars.

The Pilot Shave Energy Program was expanded to include an additional service center in the fall. After initial walk through and audits of two of its' facilities, possible annual consumption reductions between 2.8 million and 3.8 million KWH were identified. Again, these reductions would result from "no cost" methods. The potential cost savings is approximately $250K to $340K. The pilot participants are currently vetting the various audit procedures, tools, templates, and strategies with much success.

The Shave Energy Program presents a unique methodology to bridge the gap between the identification of energy-saving opportunities and implementation of energy retrofits by outlining specific actionable items based on simple operational best practices. Integration of Shave Energy with advanced metering programs will significantly expedite the detection of opportunities for energy reduction through the analysis of building energy consumption.

The success of Shave Energy is dependent on managerial commitment to existing GSA operational standards. In order to maximize the impact of the Shave Energy Program, GSA management must be proactively engaged at the national, regional, field office, and building levels.

The first step is to identify core team members. These core team members will assist in fully developing the program and providing guidance to the national program team. The second step is to make people and buildings available for training and implementation of best practices. This program's training is expected to be 10 hours for regional and field office super users and participating property managers. The audit process is expected to take approximately 24 to 30 hours per facility depending on size. And a strong commitment to implement cost saving measures uncovered during the audits.

In conclusion, it is still feasible to reduce consumption and cost with little or no investment. In these current uncertain fiscal times your commitment and support is fundamental.

Schedule Alignment

One of the easiest ways to reduce energy usage in a building is to ensure that operations such as heating, cooling, and lighting satisfy occupant requirements only during occupied times. The GSA definition of occupancy in the workplace is defined as the times during which at least 75% of all people typically working in the office are present. The Contractor should align all operational schedules to reflect GSA's occupancy definition. Providing heating and cooling services beyond the occupied operational schedule without prior approval of GSA is prohibited unless those services will be required to maintain the facility in accordance to ASHRAE thermal comfort and efficiency standards. All operating schedules must be adjusted seasonally and be approved by GSA every 90 days.

Unoccupied Heating and Cooling Operations

During unoccupied times, heating and cooling operations should be shut off, or in climates that require the circulation of mildly conditioned air, their set points set back by (at minimum) 8-10°F (e.g. if the cooling set point is 74°F then an appropriate unoccupied set point would be 84°F). As required by the Federal Management Regulations, heating temperature set points must be no higher than 55°F during non-working hours. When the building is unoccupied, only emergency lighting should remain on inside the building. During times when occupants are filtering in or out of the building at the beginning and end of the day, the air conditioning system can be in the process of ramping up or down because a lower internal load (i.e. body heat and appliance use) exists under these conditions. For more information, see SEP Reference Manual Sections.

Morning Start-Up and Afternoon Drift

Depending on the system type and building size and air conditioning load, some systems may take a number of hours to stabilize at the desired heating or cooling set points. The O&M Contractor should be aware of these start-up times and should operate the equipment schedules based on the observed response and the space occupancy. However, the system start-up response time will also vary by season. For example, GSA would expect a system that takes 2 hours to meet occupied cooling set points in August to take significantly less time to meet these set points in March. The Contractor should adjust the heating and cooling system start-up times seasonally to align the observed stabilized response of the system with the periods of 75% occupancy or greater, keeping in mind that full air conditioning need not be applied during times of lower occupancy.

Many building automation systems have algorithms for optimal start procedures based on the outside air temperature and the load required to reach set points in morning start-up. Where such systems exist, these algorithms should be utilized to minimize start-up energy consumption.

GSA recommends that Contractors shut down or set back equipment in a similar manner. In many buildings, while exact temperature set points may not be upheld, favorable temperatures will be maintained long after equipment have been shut off or set back to unoccupied levels. As occupants leave at the end of the day, cooling loads decrease. For example, if occupants leave the building between 3:30 p.m. and 5:00 p.m., the unoccupied temperature set back can actually be applied at 4:00 or 4:15 and the temperature allowed to slowly drift upwards as people leave the building. In order to determine the appropriate time for shutting down or setting back equipment operations, the Contractor should evaluate the current system capabilities and adjust the systems schedule daily if needed to optimize energy usage while maintaining acceptable levels of comfort.

Heating, Ventilation, and Air Conditioning (HVAC)

This Section summarizes the best practices for operating heating, ventilation, and air conditioning systems. As the Contractor surveys the building spaces and the associated systems, each of the following practices should be verified and the need for adjustment noted.

Timing of HVAC Adjustments

Changes to centralized building temperature set points for more efficient operation should be gradual but substantial enough to reduce system inefficiencies. If centralized building temperature set points are required the Contractor should adjust no more than by 2°F per week.

Set Point Control

ASHRAE Standard 55 for Thermal Comfort identifies acceptable comfort ranges based on humidity and mean outdoor air temperature using a metric of Predicted Percentage Dissatisfied (PPD) to optimize thermal comfort. For most summer climates for which air conditioning is utilized in the United States, acceptable cooling set points range between 74°F and 78°F. Acceptable heating set points range between 68°F and 72°F for most US climates. The Contractor shall operate all GSA conditioned space in accordance to ASHRAE Standard 55 for appropriate space types and all building thermostat dead bands shall be limited to no more than ± 2°F. For example, an appropriate set point and dead band would be 74°F ± 2°F for a cooling environment if the ASHRAE standard acceptable cooling set points range between 74°F and 78°F. An inappropriate set point and dead band would be 72°F ± 2°F or 74°F ± 3°F for a cooling environment if the ASHRAE standard acceptable cooling set points range between 74°F and 78°F.

Supply Air Temperature Resets

When outside air temperatures are lower, the building can meet space cooling temperature set points using higher supply air temperature set points. This lowers the energy costs associated with running the cooling system and, in buildings with zonal reheat, this can also prevent the waste of energy through simultaneous heating and cooling. For applicable systems, the Contractor should implement a supply air temperature reset. Where such automation is not possible, Contractors should manually implement this strategy on a seasonal basis. In most climates, discharge air temperature can be reset by about 10°F while maintaining favorable indoor temperatures and reducing energy consumption. Typical discharge air temperature resets range between 50°F and 60°F for cooling.

Chilled Water and Hot Water Resets

The prescribed recommendations for the reset of chilled water and heating hot water set points apply only to hydronic systems, in which the heating and cooling sources to the air handler are chilled water and hot water served by chiller(s) and boiler(s) respectively.

Many HVAC system configurations can be programmed to automatically reset the CHW temperature set point in response to building load, similar to supply air temperature reset control, if the system is programmable the Contractor shall automate all configurations. The Contractor should adopt a chilled water reset strategy and implement a temperature control range of 5-10°F. In general the lower limit of the control range should be no less than 42°F and that the upper limit should be no more than 2°F less than the minimum supply air temperature. Where such automation is not possible, Contractors should implement this strategy on a seasonal basis.

Most buildings can be programmed to automatically modulate hot water temperatures in response to building load. The Contractor should implement a hot water reset strategy which decreases the range to which the hot water temperature can be reset; if the system is programmable the Contractor shall automate all configurations. As a rule of thumb, the hot water temperature set point should be no lower than 140°F and no greater than 180°F. For example, if the building is controlling heating hot water temperatures to 170°F, an appropriate reset control strategy would control heating hot water between 140°F and 170°F.

Static Pressure Resets
Variable air volume systems typically modulate supply fan speed to maintain a constant duct static pressure. This static pressure set point is designed to overcome all system pressure loss at peak fan airflows. Under partial load conditions, the required airflow is less than the design airflow and a lower duct static pressure is required to meet the load. In order to meet ventilation requirements, the degree to which duct static pressure can be reduced depends on the number of zones, the zone size and maximum occupancy, and the system's air balance. Poorly balanced systems require greater static pressure to ventilate the worst-served zones. The Contractor shall rebalance any poorly balanced zones.

Most air handling units use constant duct static pressure set points around 2" WC. Depending on the building, static pressure may even be reset to below 0.5" WC while maintaining sufficient airflow for heating, cooling, and ventilation. The Contractor should determine the minimum required static pressure to meet ventilation requirements. If adjustment is possible the Contractor shall lower the static pressure until airflow to the worst stops providing adequate ventilation, as required by ASHRAE 62.1 (see next Section). Wherever systems can support it, the Contractor shall implement a duct static pressure reset control strategy that ranges from the design static pressure to the minimum static pressure required for ventilation.

Outside Air Intake
When buildings are occupied, they are required by law to intake a certain amount of outside air to maintain appropriate indoor air quality. The Contractor must verify that all HVAC systems provide ventilation as required by ASHRAE Standard 62.1 – 2010 every three years through system testing. These reports must be submitted to GSA for approval. The use of TAB reports to verify performance is strictly prohibited. The value to note in verifying the intake of outside air is the combined outdoor air rate, shown in Table 6-1 of ASHRAE 62.1. This may be calculated based on the maximum number of occupants and floor area, as shown in the equation below, or using the default values based on default occupant densities.

$$Required\ Ventilation\ (CFM) = R_P * (Max.\#\ Occupants) + R_a * (Floor\ Area)$$

Table 1 Selection of ASHRAE Standard 62.1 Table 6-1

Occupancy Category	People Outdoor Air Rate R_p		Area Outdoor Air Rate R_a		Notes	Default Values			Air Class
						Occupant Density (see Note 4)	Combined Outdoor Air Rate (see Note 5)		
	cfm/person	L/s·person	cfm/ft^2	L/s·m^2		#/1000 ft^2 or #/100 m^2	cfm/person	L/s·person	
Office space	5	2.5	0.06	0.3		5	17	8.5	1
Reception areas	5	2.5	0.06	0.3		30	7	3.5	1
Break rooms	5	2.5	0.06	0.3		25	10	5.1	1
Conference/meeting	5	2.5	0.06	0.3		50	6	3.1	1
Corridors	–	–	0.06	0.3		–			1
Courtrooms	5	2.5	0.06	0.3		70	6	2.9	1
Legislative chambers	5	2.5	0.06	0.3		50	6	3.1	1
Libraries	5	2.5	0.12	0.6		10	17	8.5	1
Lobbies	5	2.5	0.06	0.3		150	5	2.7	1

One Section of the ASHRAE 62.1 Table 6-1 is shown above. The Contractor can access the full document and a comprehensive list on the GSA Shave Energy Google Site. A conservative estimate for the required outside air flow is 20 CFM per occupant. The intake of outside air above minimum requirements can reduce or increase the total cooling energy use, depending on the outside air temperature. If possible, the Contractor shall implement airside economizer control to optimize the intake of outside air for cooling operations. If the minimum outside air intake is greater than required by ASHRAE 62.1, however, then additional energy is required to condition that air to space requirements. As best practice, minimum ventilation rates should be within 100-110% of that required by ASHRAE 62.1.

Exhaust Fan Control

GSA prohibits running exhaust fans constantly. The Contractor shall adopt an exhaust fan strategy and where possible use sensors to control all exhaust fan systems.

Placement of Supply and Return Air Diffusers

In order for building spaces to be effectively cooled and heated, the air supplied to each zone must be allowed to distribute and mix with the warmer (for cooling) or cooler (for heating) air in these spaces. If supply and return diffusers are placed too close to each other, then air flow will be short-circuited and conditioned air will be returned without effectively conditioning the space. The Contractor shall verify that all supply and return air diffusers are placed no less than 5 feet apart. The O&M Contractors shall re-distribute the supply and return air connections when necessary and feasible.

Demand Response Strategies

If GSA has a Demand Response Strategy in place the Contractor shall operate the facility in accordance to that strategy. In addition, any strategies that can be adopted on a normal routine should be adopted as standard daily practice. Any strategy that can temporarily decrease energy consumption (e.g. lighting reduction, where applicable) should be applied during high-rate demand response events

and were feasible daily. The Contractor shall maximize demand reduction strategies during high-rate periods.

Lighting and Lighting Controls

The Contractor shall remove or replace lighting fixtures and bulbs with more efficient equivalent alternatives when available when those alternatives can be procured at the same market cost. It is important to note that these investments in time pay off on their end as well because in the future they'll need to replace fewer bulbs less often. If such an alternative more efficient product is available at the request of the government the Contractor is required to use them if the payback is less than three-fourths of the Contract period or less than eighteen months whichever is less. In addition, if an appropriate lighting efficiency strategy is identified at the facility the Contractor, shall support the effort if there is no undue burden placed upon the Contractor (e.g. a de-lamping 2 hours per week over a specified amount of time).

Acceptable Levels of Luminance

Section 6.3 in the P100 specifies interior lighting requirements, which must be realized at work surfaces or a height of 30 inches by the combination of ambient lighting fixtures, task lighting, and ambient daylight. These standards should be interpreted as guidelines for appropriate lighting levels - as in actual application, these levels will vary throughout the space. The below guidelines recommended minimum and maximum values for luminance for most GSA space types. These are to be realized at working surfaces by a combination of installed lighting fixtures, task lighting, and daylight.

Table 2 Acceptable Levels of Luminance

Area/Activity	Guideline Average Illuminance (foot candles)	Recommended Minimum Illuminance (foot candles)	Recommended Maximum Illuminance (foot candles)
Parking lot	N/A	.1	5
Elevator	N/A	5	10
Inactive storage	5	5	10
Active storage	10	5	15
Stairs	10	10	15
Restroom	10	10	20
Corridor	10	10	30
Dining area	10	10	30
Lounge	10	10	30
Atrium	10	10	30
Lobby	10	10	30
Elec./Mech/Tech. room	30	20	40
Enclosed office	30	20	50
Open office	30	30	50
Conference	30	30	50
Classroom	30	30	50

The U.S. Courts Design Guide derives required levels of illumination from IESNA standards, as shown below. These have also been coupled with recommended minimum and maximum values for space luminance.

Table 3 U.S. Court Facilities – Acceptable Levels of Luminance

Area/Activity	Guideline Average Illuminance (foot candles)	Recommended Minimum Illuminance (foot candles)	Recommended Maximum Illuminance (foot candles)
Public seating	10	10	20
Supplies and storage	20	10	30
Attorney witness table	30	30	50
Witness box	30	30	50
News media room	30	30	50
Attorney work room	30	30	50
Attorney witness room	30	30	50
Jury assembly suite	30	30	50
Trial jury suite	30	30	50
Grand jury suite	30	30	50
Central court libraries	30-50	30	50
Judges chamber suites	30-50	30	50
Judge's bench	50	40	60
Bailiff	50	40	60
Interpreter	50	40	60
Court reporter	50	40	60
Jury box	50	40	60

The recommended levels of luminance should be provided for each space and over lit spaces should be reduced in electrical lighting by one of the following lighting reduction measures.

Removal and Relocation of Fixtures
Where excessive lighting exists, the simplest measure to reduce lighting energy consumption is to remove some of the fixtures that serve that area. Where over lit spaces can output favorable lighting levels using fewer of the existing installed fixtures, determine the minimum number of fixtures required to meet the desired level of luminance. Remove the unnecessary lighting fixtures and rearrange them to effectively distribute luminance throughout the space. A multiple period plan should be developed and submitted to GSA if removal or relocation of fixtures is warranted.

Removal of Lamps (De-lamping)
Where the distribution of lighting fixtures is appropriate, yet lighting levels are higher than needed, one option for reducing lighting energy is to remove lamps from the existing fixtures. For example, if a room with excessive lighting has six fixtures with three lamps per fixture, an acceptable solution could be to remove the center lamp from each fixture in order to maintain fixture symmetry yet reduce the lighting energy by 33%.

Replacement of Lamps/Fixtures
Many buildings were installed with fixtures and lamps that are grossly inefficient compared to modern lighting technology. Furthermore, newer induction, CFL and LED technologies last longer and require replacement less often than older, inefficient lamps. As these lamps burn out, they should be replaced with more efficient lamps, and where necessary, fixtures should be replaced. To maintain aesthetic consistency, a plan to replace the lamps or fixtures for an entire zone over time should be submitted to GSA for approval. For more information regarding appropriate efficient lighting technologies, see GSA Standards Related to Shave Energy and the P100 Facilities Standards for the Public Buildings Service.

Re-ballasting fixtures

Re-ballasting fixtures can be an effective method for reducing the energy consumption of lighting fixtures or increasing their total lifetime. Ballasts regulate the amount of electrical current available to a lighting fixture. When older, more inefficient, ballasts are in place and expire the Contractor shall replace them with more efficient technology. When lighting fixtures are replaced and/or existing ballasts are incompatible with the installed lighting, the Contractor must ensure that the ballast is installed to the light bulb specifications. Improper ballasting severely reduces lamp life and incurs additional maintenance and repair costs. For spaces in which dimming capabilities are desired, such as for photocell control, install dimmable ballasts to regulate the electrical current to the light bulbs.

Occupancy Control
Occupancy controls have become significantly more economical in recent years, and are proven to significantly reduce energy by allowing lighting to turn on only when spaces are occupied. They can be applied to any building interior space or parking structure. Depending on the layout and use for each space, the Contractor should choose (a combination of) specific sensor types found below when current lighting controls fail or require replacement:

- Wall-Mounted Sensors
- Ceiling-Mounted Sensors
- Bi-Level Sensors
- Passive Infrared (PIR)
- Ultrasonic
- Dual Technology

Daylight Control
Many office spaces maintain high levels of luminance during the day through windows and skylights and require no electrical lighting during most occupied hours. In some places, lighting fixtures can simply be removed where they are not unnecessary. In places where electrical lighting is only required during some hours, however, one of two strategies should be employed by the Contractor if appropriate systems are in place to allow the lights to come on only when needed:

Photocell Sensors: Measures luminance and interacts with the fixtures or BAS to control area lighting by switching lights on and off or by electronic dimming. The sensor sensitivity is adjustable.

Timer Switches: Timers interact with the fixtures directly or through the BAS to control area lighting based on the time of day.

Lighting Demand Response
Lighting reductions may also be utilized as a measure for demand response. For buildings that incur demand charges and where systems are in place, implement a continuous dimming or stepped lighting reduction demand response strategy during the peak demand period. From standard lighting levels, dim lighting by 20%, 40%, and 60% for zones with no daylight, low daylight, and high daylight respectively without occupant impact – assuming that the dimming takes place over the matter of minutes – GSA recommends at 1% per minute. With prior GSA approval lighting can be reduced up to 60% across the board during the worst demand response.

Stepped lighting reductions require stepped dimming lighting control or a wiring configuration that supports turning only some lights off. During peak demand periods, reduce the stepped lighting output or the number of lights served.

Federal High Performance Guiding Principles

Performance Measurement - Building Automation System (GP4.3a)

A BAS supports ongoing accountability and optimization of the building energy performance, and helps building engineers to efficiently operate GSA assets.

The BAS must monitor and control the major building systems, including at minimum, heating, cooling, ventilation exterior and interior lighting, if a preexisting BAS is in place. Operating in manual or non-automated modes is strictly prohibited. Altering any building system that is, was, or previously has been automated or controlled by the BAS or similar control system is prohibited and is grounds for Contract termination or penalty. Lighting may be controlled by the BAS or by time clocks, occupancy sensors, or photocells. Critical spaces include all spaces within the building except for storage closets and mechanical closets. All regularly occupied spaces, stairwells, lobbies, and corridors are considered to be critical spaces and therefore must have automatic controls in place if applicable.

All critical sensors should be calibrated annually to ensure accurate readings and control points. When used effectively, a BAS allows building engineers and management to make informed decisions regarding changes in building operations and energy saving investments.

The Contractor shall record the Base Building Systems Control and BAS Operating Capabilities in the GSA Sustainable Operations and Maintenance Tool. The Contractor shall develop a maintenance plan for all zone level sensors and actuators using GSA's "Zone Level Sensor Maintenance Plan Template and Sample." The maintenance plan must demonstrate that zone level sensors and actuators will be calibrated according to the manufacturer recommended intervals to ensure sensor and actuator accuracy and precision and proper operation of the overall systems. The plan must also demonstrate that any malfunctioning zone level sensors and actuators will be repaired or replaced. At a minimum, the maintenance plan must include the following zone level sensors and actuators:

- Terminal unit damper
- Terminal unit flow sensor
- Space temperature sensors
- Space humidity sensors (if applicable at the facility)
- Zone CO2 sensors (if applicable at the facility)
- Calibrate all system level sensors and actuators annually

The Contractor shall maintain zone level sensors and actuators according to the Zone Level Sensors Maintenance Plan. Ensure the standard operating procedure for responding to comfort calls includes calibration/verification of zone level sensors and actuators as applicable to the facility. The Contractor shall check temperature set points and resets annually, record changes to set points, programming, and schedules, set up trends so that unusual equipment operation can be identified and corrected, annually provide GSA a Calibration and Testing Report. The Contractor shall operate the facility in accordance to the Federal High Performance Guiding Principles 3.1 Performance Measurement - Building Automation System as outlined in the GSA Sustainable Operations and Maintenance Tool and Reference Guide. The Contractor shall provide GSA documentation to support compliance to the Federal High Performance Guiding Principles 3.1 Performance Measurement - Building Automation System as outlined in the GSA Sustainable Operations and Maintenance Tool and Reference Guide. The Contractor shall provide GSA a schematic of the floor layout showing automated lighting controls.

If no BAS system is in place or limited control the Contractor shall operate the GSA asset in accordance to the GSA GP3.3b - (EQc2.2) - Controllability of Systems – Lighting requirements. The contractor will confirm that the facility provides automated lighting controls (occupancy/vacancy sensors with manual-off capacity) for appropriate spaces including restrooms, conference and meeting rooms, employee lunch and break rooms, training classrooms and offices. **Provide GSA a schematic of the floor layout showing automated lighting controls**

Benchmarking, Energy and GHG Performance (GP 2.1a, 2.3, 2.4, 2.5)

GSA utilizes EPA's Energy Star Portfolio Manager (ESPM) as a tool to allow buildings to directly compare their observed energy consumption to a database of national energy data, and to establish a building energy performance rating accordingly. The facility's ESPM will be shared with the Contractor in a read only view.

GSA's Energy Star Rating goal is an Energy Star Rating of at least 75 or be 19th percentile points above the national average energy usage intensity. GSA centrally maintains all energy use for its buildings centrally and that data is uploaded to Energy Star on or about the 20th of each month.

The Contractor shall annually review the space information and building profile in the facility's ESPM account for accuracy and report to GSA an inaccuracy. The Contractor shall not update, alter, or change any utility data or entries. Support GSA in efforts of documenting compliance for an Energy Star Label. Operate the facility in accordance to the Energy Star PE Guide standards. Calibrate meters in accordance to the GSA Sustainable Operations and Maintenance Tool and Reference Guide. Operate the facility in accordance to the Federal High Performance Guiding Principles 2.1a, 2.3, 2.4, & 2.5 Energy and GHG Performance as outlined in the GSA Sustainable Operations and Maintenance Tool and Reference Guide. Provide GSA documentation to support compliance to the Federal High Performance Guiding Principles 2.1a, 2.3, 2.4, & 2.5 Energy and GHG Performance as outlined in the GSA Sustainable Operations and Maintenance Tool and Reference Guide.

BP 1 - ASHRAE 62.1-2007

To ensure that the facility is adequately ventilated with outside air (OA) the GSA has adopted the ASHRAE 62.1-2007 standards. Facilities with naturally ventilated systems (i.e. no mechanical ventilation) are not required to document compliance to the ASHRAE 62.1-2007 standard. An alternative standard can be used at GSA's discretion.

The Contractor shall annually document that all mechanical ventilation systems are meeting ventilation requirements of ASHRAE 62.1-2007. Any air handlers (AHU) that are physically not able to meet these standards must provide at least 10 CFM/person of outside air. The Contractor shall annually document proper function of all dedicated exhaust systems and operate the facility in accordance to the Federal High Performance Guiding Principles 4.1 Outside Air Ventilation & Indoor Air Quality Best Management Practices as outlined in the GSA Sustainable Operations and Maintenance Tool and Reference Guide. The Contract shall operate all heating and cooling systems and equipment in accordance the Shave Energy program standards, best practices, training, and reference guides. The Contractor shall provide GSA documentation to support the Federal High Performance Guiding Principles 4.1 Outside Air Ventilation & Indoor Air Quality Best Management Practices as outlined in the GSA Sustainable Operations and Maintenance Tool and Reference Guide.

Besides the aforementioned lighting and HVAC efficiency measures, there are a great number of other no cost efficiency measures that can easily be implemented into building operation. The following list demonstrates a number of additional strategies the Contractor should adopt if appropriate and feasible at the GSA facility:

- Timer control for, or removal of, water fountain cooling systems
- Keypad access to freight elevators
- Smart programming for elevator operation (automated, timer, BAS, sleep mode)
- Extended elevator door close operation
- LED lighting for elevators, stairs, exterior, flood lighting
- Weather stripping of doors and windows
- Plug standby load controllers (timer, occupancy)
- Dynamic modification of BAS equipment schedules
- Additional strategies can be found in the National Energy Efficiency Best Practices Study.

EXHIBIT 16
J.16. RESERVED

EXHIBIT 17
J.17. PREVENTIVE MAINTENANCE SCHEDULE

EXHIBIT 18

J.17. Solid Waste and Recycling Report

(Reserved)

Solid Waste and Recycling Report

Building #		Building Name	
Building Address			
Contractor Name		Contractor Phone #	
Submission Date			

RECYCLING

Description	Outside Container Volume/Size	Number of Containers	Pick-up Frequency	Total Volume	Conversion Factor	Total Weight (tons)	Per Ton Recycling Fee	Total Cost	Recycler Name
TOTAL									

WASTE

	Outside Container Volume/Size	Number of Containers	Pick-up Frequency	Total Volume	Conversion Factor	Total Weight (tons)	Per Ton Tipping Fee	Total Cost	Hauler Name
TOTAL									

Conversion Source(s):

HOW TO FILL OUT THE FORM:

1. Report all recyclables. For source separated recycling, provide weight for each type of material recycled. For commingled recycling, provide total weight for the mixed recyclable materials. Specify when items are composted.

2. All fields must be filled out.

3. Provide actual weight whenever possible. ** When actual weight is not available use standard Volume-to-Weight Conversion Factors for calculation. Allowances shall be made and reported for volumes that are not filled to capacity (i.e. half full, 3/4 full, etc.)

4. Pick Up Frequency: Based on monthly activity (e.g. once a week= 4, twice a week = 8, etc.)

5. Indicate conversion factor source(s).

Solid Waste and Recycling Report

Building #	1XXLER	**Building Name**	The Citizens CH
Building Address	123 American Blvd, Fun Town, USA		
Contractor Name	The Best Company	**Contractor Phone #**	555-121-6583
Submission Date	Nov 15, 2010		

RECYCLING

Description	Outside Container Volume/Size	Number of Containers	Pick-up Frequency	Total Volume	Conversion Factor	Total Weight (tons)	Per Ton Recycling Fee	Total Cost	Recycler Name
Commingled (mixed paper, cardboard, plastic)	8 cubic yard	4	4	128	1000	64	$20.00	$1,280.00	Green Company
Aluminum Cans (Compacted)	6 cubic yard	2	8	96	430	20.64	$0.00	$0.00	Green Company 2
Glass	3 Cubic yard	1	2	6	600	1.8	$30.00	$54.00	Green Company 2
Food Waste Scrap	55 gal Drums	5	2	550	412	113.3	$18.00	$2,039.40	Green Company
Wood Waste	20 cubic yard	2	4	160	40	3.2	$10.00	$32.00	Green Company
Yard Waste Composted	4 cubic yard	2	4	32	1500	24	$50.00	$1,200.00	Green Company
TOTAL		16	24	972		226.94		$4,605.40	

WASTE

	Outside Container Volume/Size	Number of Containers	Pick-up Frequency	Total Volume	Conversion Factor	Total Weight (tons)	Per Ton Tipping Fee	Total Cost	Hauler Name
	30 cubic yard roll off	3	4	360	1000	180.00	$85.00	$15,300.00	Waste Hauler 1
	20 cubic yard roll off	1	4	80	600	24.00	$79.00	$1,896.00	Waste Hauler 1
TOTAL		4	8	440	1600	204.00	$164.00	$17,196.00	

Conversion Source: EPA's Standard Volume-to-Weight Conversion Factors (http://www.epa.gov/epawaste/conserve/tools/recmeas/docs/guide_b.pdf

HOW TO FILL OUT THE FORM:

Report all recyclables. For source separated recycling, provide weight for each type of material recycled. For commingled recycling, provide total weight for the mixed recyclable materials. Specify when items are composted.

1. All fields must be filled out.

Provide actual weight whenever possible. ** When actual weight is not available, use standard Volume-to-Weight Conversion Factors for calculation. Allowances shall be made and reported for volumes that are not filled to capacity (i.e. half full, 3/4 full, etc.).

Pick Up Frequency: Based on monthly activity (e.g. once a week= 4, twice a week = 8, etc.)

Indicate conversion factor source(s).

SECTION K – REPRESENTATIONS AND INSTRUCTIONS

K. Representations, Certifications, and Other Statements of Offerors or Respondents

K. 1. Annual Representations and Certifications (JUL 2013)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 561210.

(2) The small business size standard is $35.5 Million.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7 is not included in this solicitation, and the offeror is currently regis-tered in the System for Award Management (SAM), and has completed the Representations and Certifications section of SAM electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

[X] (i) Paragraph (d) applies.

[ ] (ii) Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c)(1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two- step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed $150,000.

(iii) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.

(iv) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(v) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations—Representation. This provision applies to solicitations using funds appropriated in fiscal years 2008, 2009, 2010, or 2012.

(vi) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(vii) 52.214-14, Place of Performance—Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(viii) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.
(ix) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.
(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast

(x) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.
(xi) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.
(xii) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.
(xiii) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.
(xiv) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA–designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.
(xv) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA–designated items.

(xvi) 52.225-2, Buy American Act Certificate. This provision applies to solicitations containing the clause at 52.225-1.
(xvii) 52.225-4, Buy American Act—Free Trade Agreements—Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225-3.
(A) If the acquisition value is less than $25,000, the basic provision applies.
(B) If the acquisition value is $25,000 or more but is less than $50,000, the provision with its Alternate I apply.
(C) If the acquisition value is $50,000 or more but is less than $77,494, the provision with its Alternate II applies.
(D) If the acquisition value is $77,494 or more but is less than $100,000, the provision with its Alternate III applies.
(xviii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.
(xix) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan—Certification. This provision applies to all solicitations.
(xx) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran-Representation and Certifications. This provision applies to all solicitations.
(xxi) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to—
(A) Solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions; and
(B) For DoD, NASA, and Coast Guard acquisitions, solicitations that contain the clause at 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns.

(2) The following certifications are applicable as indicated by the Contracting Officer: [Contracting Officer check as appropriate.]

(i) 52.219-22, Small Disadvantaged Business Status.

(A) Basic.

(B) Alternate I.

(ii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

(iii) 52.222-48, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment Certification.

(iv) 52.222-52, Exemption from Application of the Service Contract Act to Contracts for Certain Services–Certification.

X (v) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA–Designated Products (Alternate I only).

(vi) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(vii) 52.227-15, Representation of Limited Rights Data and Restricted

Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the SAM website accessed through https://www.acquisition.gov. After reviewing the SAM database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR CLAUSE # TITLE DATE CHANGE

_____

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

K.2. GSA Class Deviations – Prohibition Against Contracting with Corporations that have Unpaid Delinquent Federal Tax Liability or a Felony Conviction Under Federal Law.

GSAR 552.203-72 Representation by Corporations Regarding an Unpaid Delinquent Federal Tax Liability or a Felony Conviction under any Federal Law (DEVIATION) (JAN 2015)

a. In accordance with Sections 744 and 745 of Division E of the Consolidated and Further Continuing Appropriations Act, 2015 (Public Law 113-235, December 16, 2014), none of the funds made available by Division E of the Consolidated and Further Continuing Appropriations Act, 2015 or any other Act, may be used to enter into a contract action with any corporation that-

1. Has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, where the awarding agency is aware of the unpaid tax liability, unless the agency has considered suspension or debarment of the corporation and has made a determination that this further action is not necessary to protect the interests of the Government, or

2. Was convicted of a felony criminal violation under any Federal law within the preceding 24 months, where the awarding agency is aware of the conviction, unless the agency has considered suspension or debarment of the corporation and has made a determination that this action is not necessary to protect the interests of the Government.

b. The Contractor represents that-

1. It is [ ] is not [ ] a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

2. It is [ ] is not [ ] a corporation that was convicted of a felony criminal violation under any Federal law within the preceding 24 months.

(End of Provision)

K.3. PROHIBITION ON CONTRACTING WITH ENTITIES THAT REQUIRE CERTAIN INTERNAL CONFIDENTIALITY AGREEMENTS-REPRESENTATION (DEVIATION 2015-02)

FAR 52.203-98, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements-Representation (DEVIATION FEB 2015)

a. In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Resolution Appropriations Act, 2015 (Pub. L. 113-235), Government agencies are not permitted to use funds appropriated (or otherwise made available) under that or any other Act for contracts with an entity that requires employees or subcontractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

b. The prohibition in paragraph (a) of this provision does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

c. Representation. By submission of its offer, the Offeror represents that it does not require employees or sub-contractors of such entity seeking to report fraud, waste, or abuse to sign internal

confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.
(End of provision)

K.4. REPRESENTATION BY ENTITIES REGARDING INCORPORATION OR CHARTER IN BERMUDA OR THE CAYMAN ISLANDS – FISCAL YEAR 2015 APPROPRIATIONS, DIVISION E AGENCIES (APRIL 2015)

552.209-70 Representation by Entities Regarding Incorporation or Charter in Bermuda or the Cayman Islands - Fiscal Year 2015 Appropriations, Division E Agencies (APRIL 2015)

(a) This clause only applies if:
(1) The contract was entered into in or after fiscal year (FY) 2015; and
(2) The source of funding for the contract action is appropriated funding provided by Division E under the Consolidated and Further Continuing Appropriations Act, 2015.

b. For task order or delivery orders, this clause should only be used if the base contract against which the order is placed was awarded in or after FY 2015, and the task or delivery order uses funds provided by Division E of the FY15 CFCAA.

c. Division E Agencies under the Consolidated and Further Continuing Appropriations Act, 2015, consist of the following exhaustive list of entities: - Department of the Treasury (Departmental Offices; Financial Crimes Enforcement Network; Treasury Forfeiture Fund; Bureau of the Fiscal Service; Alcohol and Tobacco Tax and Trade Bureau; United States Mint; Community Development Financial Institutions Fund Program Account; Internal Revenue Service); - Executive Office of the President and Funds Appropriated to the President (White House; Executive Residence at the White House; White House Repair and Restoration; Council of Economic Advisors; National Security Council and Homeland Security Council; Office of Administration; Office of Management and Budget; Office of National Drug Control Policy; Information Technology Oversight and Reform; Special Assistance to the President; Official Residence of the Vice President); - The Judiciary (Supreme Court of the United States; United States Court of Appeals for the Federal Circuit; United States Court of International Trade; Courts of Appeals, District Courts and Other Judicial Services; Administrative Office of the United States Courts; Federal Judicial Center; United States Sentencing Commission); - District of Columbia (A// Federal funding); - Independent Agencies (Administrative Conference of the United States; Commodity Futures Trading Commission; Consumer Product Safety Commission; Election Assistance Commission; Federal Communications Commission; Federal Deposit Insurance Corporation; Federal Election Commission; Federal Labor Relations Authority; Federal Trade Commission; General Services Administration; Harry S. 3 Truman Scholarship Foundation; Merit Systems Protection Board; Morris K. Udall and Stewart A. Udall Foundation; National Archives and Records Administration; National Credit Union Administration; Office of Government Ethics; Office of Personnel Management; Office of Special Counsel; Postal Regulatory Commission; Privacy and Civil Liberties Oversight Board; Recovery Accountability and Transparency Board; Securities and Exchange Commission; Selective Service System; Small Business Administration; United States Postal Service; United States Tax Court)

d. In accordance with Section 627 of the Consolidated and Further Continuing Appropriations, Act, 2015, none of the funds made available by the Consolidated and Further Continuing

Appropriations, Act, 2015, Division E, may be used to enter into any contract with an incorporated entity if such entity's sealed bid or competitive proposal shows that such entity is incorporated or chartered in Bermuda or the Cayman Islands, and such entity's sealed bid or competitive proposal shows that such entity was previously incorporated in the United States.

e. The Offeror represents that it is [ ] is not [ ] an entity incorporated or chartered in Bermuda or the Cayman Islands, and was [ ] or was not [ ] previously incorporated or chartered in the United States.

[End of Clause]

SECTION L – INSTRUCTIONS, CONDITIONS AND NOTICES TO BIDDERS/OFFERERS

NOTE: Certain information contained in the solicitation documents may have been designated as Sensitive but Unclassified (SBU) building information. With respect to such information, Offerors shall agree to the terms for receipt of such information, as set forth in the provision in Section H.15 Sensitive But Unclassified (SBU) Building Information, as a condition of receipt of such information

L.1. FAR 52.252-1 Solicitation Provisions Incorporated by Reference (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at the following address: www.acquisition.gov/far

FAR	TITLE	DATE
52.204-6	Data Universal Numbering System (DUNS) Number	JUL 2013
52.204-7	System for Award Management	JUL 2013
52.214-34	Submission of Offers in the English Language	APR 1991
52.214-35	Submission of Offers in U.S. Currency	APR 1991
52.222-24	Pre-Award On-Site Equal Opportunity Compliance Evaluation	FEB 1999
52.232-38	Submission of Electronic Funds Transfer Information With Offer	JUL 2013
52.237-1	Site Visit	APR 1984

L.2. FAR and GSAR Provisions in Full Text

52.203-98, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements—Representation (DEVIATION 2015-02)
Insert the following provision in all solicitations that will use Federal funds.

(a) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Resolution Appropriations Act, 2015 (Pub. L. 113-235), Government agencies are not permitted to use funds appropriated (or otherwise made available) under that or any other Act for contracts with an entity that requires employees or subcontractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(b) The prohibition in paragraph (a) of this provision does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(c) Representation. By submission of its offer, the Offeror represents that it does not require employees or subcontractors of such entity seeking to report fraud, waste, or abuse to sign internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or

law enforcement representative of a Federal department or agency authorized to receive such information.

52.203-99, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements (DEVIATION 2015-02)

(a) The Contractor shall not require employees or subcontractors seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting such employees or subcontractors from lawfully reporting such waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information.

(b) The contractor shall notify employees that the prohibitions and restrictions of any internal confidentiality agreements covered by this clause are no longer in effect.

(c) The prohibition in paragraph (a) of this clause does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

(d)(1) In accordance with section 743 of Division E, Title VII, of the Consolidated and Further Continuing Resolution Appropriations Act, 2015 (Pub. L. 113-235), use of funds appropriated (or otherwise made available) under that or any other Act may be prohibited, if the Government determines that the Contractor is not in compliance with the provisions of this clause.

(2) The Government may seek any available remedies in the event the contractor fails to comply with the provisions of this clause.

FAR 52.211-1 Availability of Specifications Listed in the GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101- 29. (AUG 1998)

(a) The GSA Index of Federal Specifications, Standards and Commercial Item Descriptions, FPMR Part 101-29, and copies of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained for a fee by submitting a request to—

GSA Federal Supply Service
Specifications Section, Suite 8100 470 East L'Enfant Plaza, SW Washington, DC 20407
Telephone (202) 619-8925
Facsimile (202) 619-8978
(b) If the General Services Administration, Department of Agriculture, or Department of Veterans Affairs issued this solicitation, a single copy of specifications, standards, and commercial item descriptions cited in this solicitation may be obtained free of charge by submitting a request to the addressee in paragraph (a) of this provision. Additional copies will be issued for a fee.

FAR 52.215-1 INSTRUCTIONS TO OFFERORS—COMPETITIVE ACQUISITION (JAN 2004)

(a) **Definitions.** As used in this provision—

"Discussions" are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

"In writing," "writing," or "written" means any worded or numbered expression that can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

"Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

"Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

"Time," if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) **Amendments to solicitations**. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals.

(1) The solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.
Electronic Commerce proposals are permitted.

(2) The first page of the proposal must show—

(i) The solicitation number;
(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);
(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, revision, and withdrawal of proposals.

Offerors are responsible for submitting proposals, and any modifications or revisions, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 3:30 p.m., local time, on the following date and at the following address:

Date: July 21, 2015
Address: GSA/PBS
819 Taylor St., RM 12B, #329
Fort Worth, TX 76102
Attn: Stephan Harris

Proposals submitted through electronic commerce method shall be sent to the following email address: stephan.harris@gsa.gov

(ii)(A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and—
(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 3:00 p.m. one working day prior to the date specified for receipt of proposals; or
(2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or
(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government will be considered at any time it is received and may be accepted.

(iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall—

(1) Mark the title page with the following legend:

This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed—in whole or in part—for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of—or in connection with—the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend:

Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award.

(1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and sub factors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government’s interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror’s initial proposal should contain the offeror’s best terms from a cost or price and technical standpoint. The Government

reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) If a post-award debriefing is given to requesting offerors, the Government shall disclose the following information, if applicable:

(i) The agency's evaluation of the significant weak or deficient factors in the debriefed offeror's offer.

(ii) The overall evaluated cost or price and technical rating of the successful and the debriefed offeror and past performance information on the debriefed offeror.

(iii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection.

(iv) A summary of the rationale for award.

(v) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(vi) Reasonable responses to relevant questions posed by the debriefed offeror as to whether source-selection procedures set forth in the solicitation, applicable regulations, and other applicable authorities were followed by the agency.

FAR 52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 2010) ALTERNATE IV (OCT 2010)

Submission of certified cost or pricing data is not required.

FAR 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm-Fixed Price, Indefinite Delivery, Indefinite Quantity type contract.

FAR 52.222-55 MINIMUM WAGES UNDER EXECUTIVE ORDER 13658 (Dec 2014)

(a) Definitions. As used in this clause–
"United States" means the 50 states and the District of Columbia.
"Worker" –
(1) Means any person engaged in performing work on, or in connection with, a contract covered by Executive Order 13658, and
(i) Whose wages under such contract are governed by the Fair Labor Standards Act (29 U.S.C. chapter 8), the Service Contract Labor Standards statute (41 U.S.C. chapter 67), or the Wage Rate Requirements (Construction) statute (40 U.S.C. chapter 31, subchapter IV),
(ii) Other than individuals employed in a bona fide executive, administrative, or professional capacity, as those terms are defined in 29 CFR part 541,
(iii) Regardless of the contractual relationship alleged to exist between the individual and the employer.
(2) Includes workers performing on, or in connection with, the contract whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(c).
(3) Also includes any person working on, or in connection with, the contract and individually registered in a bona fide apprenticeship or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship.
(b) Executive Order Minimum Wage rate.
(1) The Contractor shall pay to workers, while performing in the United States, and performing on, or in connection with, this contract, a minimum hourly wage rate of $10.10 per hour beginning January 1, 2015.
(2) The Contractor shall adjust the minimum wage paid, if necessary, beginning January 1, 2016 and annually thereafter, to meet the Secretary of Labor's annual E.O. minimum wage. The Administrator of the Department of Labor's Wage and Hour Division (the Administrator) will publish annual determinations in the Federal Register no later than 90 days before the effective date of the new E.O. minimum wage rate. The Administrator will also publish the applicable E.O. minimum wage on www.wdol.gov (or any successor website) and on all wage determinations issued under the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute. The applicable published E.O. minimum wage is incorporated by reference into this contract.
(3)(i) The Contractor may request a price adjustment only after the effective date of the new annual E.O. minimum wage determination. Prices will be adjusted only if labor costs increase as a result of

an increase in the annual E.O. minimum wage, and for associated labor costs and relevant subcontract costs. Associated labor costs shall include increases or decreases that result from changes in social security and unemployment taxes and workers' compensation insurance, but will not otherwise include any amount for general and administrative costs, overhead, or profit.
(ii) Subcontractors may be entitled to adjustments due to the new minimum wage, pursuant to paragraph (b)(2). Contractors shall consider any subcontractor requests for such price adjustment.
(iii) The Contracting Officer will not adjust the contract price under this clause for any costs other than those identified in paragraph (b)(3)(i) of this clause, and will not provide duplicate price adjustments with any price adjustment under clauses implementing the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute.
(4) The Contractor warrants that the prices in this contract do not include allowance for any contingency to cover increased costs for which adjustment is provided under this clause.
(5) A pay period under this clause may not be longer than semi-monthly, but may be shorter to comply with any applicable law or other requirement under this contract establishing a shorter pay period. Workers shall be paid no later than one pay period following the end of the regular pay period in which such wages were earned or accrued.
(6) The Contractor shall pay, unconditionally to each worker, all wages due free and clear without subsequent rebate or kickback. The Contractor may make deductions that reduce a worker's wages below the E.O. minimum wage rate only if done in accordance with 29 CFR 10.23, Deductions.
(7) The Contractor shall not discharge any part of its minimum wage obligation under this clause by furnishing fringe benefits or, with respect to workers whose wages are governed by the Service Contract Labor Standards statute, the cash equivalent thereof.
(8) Nothing in this clause shall excuse the Contractor from compliance with any applicable Federal or State prevailing wage law or any applicable law or municipal ordinance establishing a minimum wage higher than the E.O. minimum wage. However, wage increases under such other laws or municipal ordinances are not subject to price adjustment under this subpart.
(9) The Contractor shall pay the E.O. minimum wage rate whenever it is higher than any applicable collective bargaining agreement(s) wage rate.
(10) The Contractor shall follow the policies and procedures in 29 CFR 10.24(b) and 10.28 for treatment of workers engaged in an occupation in which they customarily and regularly receive more than $30 a month in tips.
(c)(1) This clause applies to workers as defined in paragraph (a). As provided in that definition–
(i) Workers are covered regardless of the contractual relationship alleged to exist between the contractor or subcontractor and the worker;
(ii) Workers with disabilities whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(c) are covered; and
(iii) Workers who are registered in a bona fide apprenticeship program or training program registered with the Department of Labor's Employment and Training Administration, Office of Apprenticeship, or with a State Apprenticeship Agency recognized by the Office of Apprenticeship, are covered.
(2) This clause does not apply to–
(i) Fair Labor Standards Act (FLSA)-covered individuals performing in connection with contracts covered by the E.O., i.e. those individuals who perform duties necessary to the performance of the contract, but who are not directly engaged in performing the specific work called for by the contract, and who spend less than 20 percent of their hours worked in a particular workweek performing in connection with such contracts;
(ii) Individuals exempted from the minimum wage requirements of the FLSA under 29 U.S.C. 213(a) and 214(a) and (b), unless otherwise covered by the Service Contract Labor Standards statute, or the Wage Rate Requirements (Construction) statute. These individuals include but are not limited to-

(A) Learners, apprentices, or messengers whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(a).
(B) Students whose wages are calculated pursuant to special certificates issued under 29 U.S.C. 214(b).
(C) Those employed in a bona fide executive, administrative, or professional capacity (29 U.S.C. 213(a)(1) and 29 CFR part 541).
(d) Notice. The Contractor shall notify all workers performing work on, or in connection with, this contract of the applicable E.O. minimum wage rate under this clause. With respect to workers covered by the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, the Contractor may meet this requirement by posting, in a prominent and accessible place at the worksite, the applicable wage determination under those statutes. With respect to workers whose wages are governed by the FLSA, the Contractor shall post notice, utilizing the poster provided by the Administrator, which can be obtained at www.dol.gov/whd/govcontracts, in a prominent and accessible place at the worksite. Contractors that customarily post notices to workers electronically may post the notice electronically provided the electronic posting is displayed prominently on any Web site that is maintained by the contractor, whether external or internal, and customarily used for notices to workers about terms and conditions of employment.
(e) Payroll Records.
(1) The Contractor shall make and maintain records, for three years after completion of the work, containing the following information for each worker:
(i) Name, address, and social security number;
(ii) The worker’s occupation(s) or classification(s);
(iii) The rate or rates of wages paid;
(iv) The number of daily and weekly hours worked by each worker;
(v) Any deductions made; and
(vi) Total wages paid.
(2) The Contractor shall make records pursuant to paragraph (e)(1) of this clause available for inspection and transcription by authorized representatives of the Administrator. The Contractor shall also make such records available upon request of the Contracting Officer.
(3) The Contractor shall make a copy of the contract available, as applicable, for inspection or transcription by authorized representatives of the Administrator.
(4) Failure to comply with this paragraph (e) shall be a violation of 29 CFR 10.26 and this contract. Upon direction of the Administrator or upon the Contracting Officer's own action, payment shall be withheld until such time as the noncompliance is corrected.
(5) Nothing in this clause limits or otherwise modifies the Contractor’s payroll and recordkeeping obligations, if any, under the Service Contract Labor Standards statute, the Wage Rate Requirements (Construction) statute, the Fair Labor Standards Act, or any other applicable law.
(f) Access. The Contractor shall permit authorized representatives of the Administrator to conduct investigations, including interviewing workers at the worksite during normal working hours.
(g) Withholding. The Contracting Officer, upon his or her own action or upon written request of the Administrator, will withhold funds or cause funds to be withheld, from the Contractor under this or any other Federal contract with the same Contractor, sufficient to pay workers the full amount of wages required by this clause.
(h) Disputes. Department of Labor has set forth in 29 CFR 10.51, Disputes concerning contractor compliance, the procedures for resolving disputes concerning a contractor’s compliance with Department of Labor regulations at 29 CFR part 10. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. These disputes include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the Department of Labor, or the workers or their representatives.

(i) Antiretaliation. The Contractor shall not discharge or in any other manner discriminate against any worker because such worker has filed any complaint or instituted or caused to be instituted any proceeding under or related to compliance with the E.O. or this clause, or has testified or is about to testify in any such proceeding.
(j) Subcontractor compliance. The Contractor is responsible for subcontractor compliance with the requirements of this clause and may be held liable for unpaid wages due subcontractor workers.
(k) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (k) in all subcontracts, regardless of dollar value, that are subject to the Service Contract Labor Standards statute or the Wage Rate Requirements (Construction) statute, and are to be performed in whole or in part in the United States.

FAR 52.223-2 AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS
(SEPT 2013)

(a) In the performance of this contract, the contractor shall make maximum use of biobased products that are United States Department of Agriculture (USDA)-designated items unless-

(1) The product cannot be acquired-

(i) Competitively within a time frame providing for compliance with the contract performance schedule;

(ii) Meeting contract performance requirements; or

(iii) At a reasonable price.

(2) The product is to be used in an application covered by a USDA categorical exemption (see 7 CFR 3201.3(e)). For example, all USDA-designated items are exempt from the preferred procurement requirement for the following:

(i) Spacecraft system and launch support equipment.

(ii) Military equipment, i.e., a product or system designed or procured for combat or combat-related missions.

(b) Information about this requirement and these products is available at http://www.biopreferred.gov.

(c) In the performance of this contract, the Contractor shall-

(1) Report to http://www.sam.gov, with a copy to the Contracting Officer, on the product types and dollar value of any USDA-designated biobased products purchased by the Contractor during the previous Government fiscal year, between October 1 and September 30; and

(2) Submit this report no later than-

(i) October 31 of each year during contract performance; and

(ii) At the end of contract performance

FAR 52.233-2 SERVICE OF PROTEST (SEP 2006)
(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO) shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from:

General Services Administration (GSA), Public Building Service
819 Taylor Street
Fort Worth, Texas 76102
Attention: Brian Dwyer
Contracting Officer
Solicitation No. GS-07P-15-JU-D-0021
(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

GSAR 552.237-70 QUALIFICATIONS OF OFFERORS (JUNE 2009)

(a) Offers will be considered only from responsible organizations or individuals now or recently engaged in the performance of building service contracts comparable to those described in this solicitation. To determine an Offeror's qualifications, the Offeror may be requested to furnish a narrative statement listing comparable contracts which it has performed; a general history of its operating organization; and its complete experience. An Offeror may also be required to furnish a statement of its financial resources; show that it has the ability to maintain a staff of regular employees adequate to ensure continuous performance of the work; and, demonstrate that its equipment and/or plant capacity for the work contemplated is sufficient, adequate, and suitable.

(b) Competency in performing comparable building service contracts, demonstration of acceptable financial resources, personnel staffing, plant, equipment, and supply sources will be considered in determining whether an Offeror is responsible.

(c) Prospective Offerors are advised that in evaluating these areas involving any small business concern(s), any negative determinations are subject to the Certificate of Competency procedures set forth in the Federal Acquisition Regulation.

L.3. <u>Pre-Proposal and Site Visit Meeting</u>
A Pre-Proposal Conference will be held on **June 29, 2015 at 1:00 p.m. local time at Richard C. White Federal Building, El Paso, TX.** Please contact Suzan Aguilar at (915) 534-6267 or at dolores.aguilar@gsa.gov no later than June 8, 2015 to reserve a seat (seating is limited).
The site visit/walk-through portion of the Richard C. White Federal Building, El Paso, TX will be provided by GSA, beginning at 1:00 p.m. local time immediately following the Pre-Solicitation Meeting. The site visit/walk through portion of the buildings will be continued through June 29-July 2, 2015. An opportunity will be provided to view all locations.

The purpose of the conference is to provide a briefing of the contracting concept, the scope of work, the specifications, and to allow prospective Offerors the opportunity to ascertain the complexities and the location of the services to be performed, along with the general and local conditions which could materially affect conduct of operations and the costs involved.

The Government considers attendance at this conference vital to the preparation of a competitive offer. It will enable the Contractor to become acquainted with the areas to be serviced, and to be aware of the specific problem areas which require special attention or services.

Failure to attend this meeting may not be used as an excuse for omissions or miscalculations in offers. It is emphasized that it is more advantageous for each Offeror to have qualified representation at the Pre-Proposal Conference.

While the conference will provide an opportunity to discuss and clarify the solicitation provisions, nothing said or represented in the conference shall be deemed to modify the solicitation requirements unless followed by a written amendment. NO QUESTIONS WILL BE ACCEPTED PRIOR TO OR DURING THE PRE-PROPOSAL CONFERENCE AND SITE VISIT. All questions shall be submitted in writing (preferably by email), by 3:00 PM, June 26, 2015 to the Contracting Officer at:

General Services Administration (GSA)
Public Building Service (7PQB)
Attn: Brian Dwyer, Contracting Officer
819 Taylor Street, Room 12B
Fort Worth, TX 76102
or
brian.Dwyer@gsa.gov [Email preferred, but not required]

Offeror participation is strongly encouraged, although attendance is not mandatory. Seating capacity is limited (2 per firm request, if possible) and available on a first come, first served basis. Individuals who plan to attend are requested to contact the GSA Building Manager, Suzan Aguilar at (915)534-6267, not later than close of business on June 8, 2015 to enable a count of attendance.

L.3.1. Site Visit/Walk-Through Tours

The site visit/walk-through portion of the buildings will be provided by GSA, beginning at 1:00 p.m. local time, June 29, 2015. The site visit/walk through portion of the buildings will be continued through June 29 – July 2, 2015. An opportunity will be provided to view all locations.

Prospective Contractors are encouraged to make an on-site, in-depth review of the facilities, equipment, job requirements, etc. All data, preventive maintenance (PM) guides, etc., in this solicitation and referenced as being in the Reference Library are the Government's best information available. The Reference Library is available during the hours of 8:00 a.m. to 4:00 p.m. Monday through Friday, excluding Federal holidays, and is located at the address shown below. It will be incumbent upon the Contractor to develop his Standard Operating Plan (SOP) based on actual equipment inventory, job requirements, and site conditions, etc

General Services Administration (GSA)
Public Building Service
700 E. San Antonio St. Ste 403
El Paso, TX 79901
Point of Contact: Suzan Aguilar
E-mail: suzan.aguilar@gsa.gov
Phone Number: (915) 534-6267

Aside from the scheduled site visit tour referenced above and because of the potential for disruption to governmental activities, particularly in the U.S. Court, and other tenant areas, additional access to non-public areas of the building(s)/facility(s) for inspection purposes may not be possible.

All addresses listed below are meeting points. Transportation will NOT be provided to the locations. However, GSA will lead the caravan from location to location as best at possible. It will be the contractor's responsibility to find and locate the destination. **Please limit the number of attendees per firm to 2 people.**

It is critical that Ms. Aguilar be contacted in the timeframe listed above due to security requirements at some of the buildings. A temporary ID badge may be issued for entrance to certain areas/building locations.

Schedule:

Pre-Proposal Conference:

June 29, 2015 @ 1:00 a.m., MST, Richard C. White Federal Building, El Paso, TX

Site Visits:
June 29, 2015/1:00 pm (mountain time) - White Federal Building, 700 East San Antonio Avenue, El Paso, TX

June 29, 2015/2:30 pm(mountain time) - U S Courthouse, 511 East San Antonio Avenue, El Paso, TX

June 29, 2015/3:30 pm (mountain time) - Armendariz Courthouse, 525 Magoffin Avenue, El Paso, TX

June 30, 2015/7:00 am (mountain time) - BOTA Port of Entry, 3600 East Paisano Drive, El Paso, TX

June 30, 2015/10:00 am (mountain time) - PDN Port of Entry, 1000 South El Paso Street, El Paso, TX

June 30, 2015 /12:00 noon (mountain time) - DCL Port of Entry, 1090 Mesa, El Paso, TX

June 30, 2015/2:30 pm (mountain time) - Ysleta Port of Entry, 797 South Zaragoza Road, El Paso, TX

July 1, 2015/ 11:00 am (central time) - Border Patrol Sector Headquarters, 300 West Madrid Street, Marfa, TX

July 1, 2015 3:00 pm (mountain time) - Fort Hancock Port of Entry, Termination of FM 1088, Fort Hancock, TX

July 1, 2015 4:00 pm (mountain time) - T&G Port of Entry, FM 1109 at New Bridge, Tornillo, TX

July 2, 2015 7:30 am (mountain time) - Santa Teresa Port of Entry, 104 Santa Teresa, Santa Teresa, NM

July 2, 2015 10:45 am (mountain time) - Columbus Port of Entry, Palomas and 2nd Street, Columbus, NM

PLEASE READ CAREFULLY THE BELOW INSTRUCTIONS:

No later than 03:00 P.M. MST on 06/25/2015, interested parties attending the site visit/walk-through must email the COR, Suzan Aguilar (suzan.aguilar@gsa.gov) to confirm attendance. Confirmation is needed as a security requirement in order to pass security at certain building locations. Email to Ms. Aguilar shall be entitled "GS-07P-15-JU-D-0021 – Site-Visit – Confirmation". Required in the email is a list of attendees including the company represented. The names listed must match the name shown on an official, state-issued identification card (i.e. driver's license). In some buildings, laptops and tablets will not be allowed. The ability to use cameras will be determined by the on-site building manager. If a camera is to be used, the serial number for the camera must be included in the email to Suzan Aguilar. The camera will need to be separate from the laptop or tablet. Smart phones with cameras will be determined as acceptable by on-site security. Offeror's should plan accordingly.

L.4 Instructions for Submitting Proposals

Proposals shall be received no later than July 21, 2015 at 3:00 PM CST to the following address:

General Services Administration (GSA)
Public Building Service
Attn: Stephan Harris, 7PQC
819 Taylor Street, Floor 12B-329
Fort Worth, TX 76102

L.4.1 General

The following information is instructions for the preparation and submission of proposals. The purpose is to establish requirements for the format and content of proposals so that proposals contain all essential information and can be evaluated equitably. The proposal submission shall be clear, concise, and shall include sufficient detail to evaluate and substantiate the validity of stated claims. Offerors shall assume that the Government has no prior knowledge of the company's capability and experience.

Non-Responsiveness to the requested information herein may result in the offeror being ineligible for award. All proposal information is subject to verification by the Government. All information within the page limitations of the solicitation is subject to evaluation. The Government will evaluate proposals in accordance with the evaluation criteria set forth in Section M of this solicitation.

Offerors are prohibited from modifying, in any way, shape, or form, any documents, printed or electronic, associated with this solicitation, including, but not limited to, the Statement of Work and any amendment(s) thereto.

The electronic solicitation documents, as posted on FedBizOpps (http://www.fbo.gov) shall be the "official" documents for this solicitation.

This solicitation has been set-aside for 8(a) firms in accordance with FAR 52.219-17.

L.4.2 <u>Proposal Format and Content Requirements</u>

(1) Proposals shall be submitted in three (3) separate parts:

(a) Part One - Technical Proposal
- (i) Past Performance
- (ii) Management Plan
- (iii) Experience

(b) Part Two - Price Proposal

(c) Part Three – Miscellaneous Documents
- (i) Standard Form (SF) 33 (Solicitation Offer and Award)
- (ii) System for Award Management (SAM) Registration
- (iii) Online Representations and Certifications (ORCA)
- (iv) Standard Form (SF) 30 (Amendment of Solicitation)

(2) Format

Offerors shall submit their Technical Proposal using the following format:

Page size shall be 8.5 x 11 inches;
Pages shall be single-spaced;

The font size shall be no less than eleven (11) point except for tables, charts, graphs and figures, which shall be no smaller than eight (8) point; text in "screen shot", intended for representation of the actual item, are exempt from font size requirements when there is accompanying text explaining them.

Top and bottom margins shall be at least one-inch. Margins may contain a disclaimer regarding proprietary information in the footer and provide corporate logos in the header within the one-inch top and bottom margins. Side margins shall be at least ¾-inch;
Tables, charts, graphs and figures may be used wherever practical to depict systems and layout, implementation schedules, and plans if necessary.

The electronic copy of the proposal shall be provided on CD-R (not CD-RW) compact disks, using Adobe Acrobat (.pdf format) and Microsoft Word (.doc format) for the technical proposal and Microsoft Excel 2007 (.xlsx format) for Figure B-3, Pricing of O & M Services and Figure L-1 Management Plan Worksheet. All CD-R compact disk(s) shall be labeled with the solicitation number, company name and date. Offerors shall ensure that all disks are virus free. Nothing may be on the disks except the proposal files.

(3) Submission

The offeror shall submit Part One - Technical Proposal, Part Two - Price Proposal, and Part Three – Miscellaneous Documents, prepared in conformance with the outline detailed in this section.

Part One - Technical Proposal shall be in a separate sealed package and **contain 1 Original Paper Copy and 1 Electronic CD-R of the Technical Proposal, marked "TECHNICAL PROPOSAL for Operations & Maintenance Services for El Paso, TX, Solicitation No. GS-07P-15-JU-D-0021."** The Electronic copies located on the CD-R should be submitted as 6 separate attachments only - Past Performance, Management Plan, and Experience in Adobe Acrobat (.pdf format) and Past Performance, Management Plan, and Experience in Microsoft Word (.doc format).

Part Two – Price Proposal shall be in a separate sealed package and contain **1 Original Paper Copy and 1 Electronic CD- R of the Price Proposal, marked "PRICE PROPOSAL for Operations & Maintenance Services for El Paso, TX, Solicitation No. GS-07P-15-JU-D-0021".**

Part Three – Miscellaneous Documents shall be in a separate sealed package and contain **1 Original Paper Copy of each document and 1 Electronic CD-R of the Miscellaneous Documents, marked "MISCELLANEOUS DOCUMENTS for Operations & Maintenance Services for El Paso, TX, Solicitation No. GS-07P-15-JU-D-0021".**

Part One, Part Two, and Part Three of these packages shall be sealed in a fourth package and/or container, marked **"PROPOSAL for Operations & Maintenance Services for El Paso, TX, Solicitation No. GS-07P-15-JU-D-0021".**

Proposals shall be submitted to:

General Services Administration (GSA)
Public Building Service
Attn: Stephan Harris, Contract Specialist (7PQB)
819 Taylor Street, Room 12B-#329
Fort Worth, TX 76102
Note: The offeror must sign and submit the Standard Form (SF) 33 with their proposal in accordance with paragraph (4) below.

(4) Offer and Acceptance

The Government requires a minimum acceptance period of not less than **180** calendar days. The offeror shall complete Block 12 of each SF 33 submitted with full cognizance of the minimum acceptance period established herein. "Acceptance period," as used in this provision, means the number of calendar days available to the Government for awarding a Contract from the date specified in this solicitation for receipt of offers. Offerors may only specify a longer acceptance period than the Government's minimum requirement.

The offeror must fill out their address, phone number, and authorized representative to commit the offeror to contractual obligations (Block 15A, 15B, and 16 of the SF 33). The address must match the information in the System for Award Management (SAM) Registration.

The offeror must sign and date (Block 17 and 18 of the SF 33) to constitute the Offeror's acceptance of the terms and conditions of the solicitation.

The offeror must acknowledge receipt of any amendments to this solicitation in Block 14 of the SF 33.

L.5. TECHNICAL PROPOSAL REQUIREMENTS

The Technical Proposal submission requirements and outline, as set forth below, shall be in consideration of the required services as described in the solicitation.

The page limitations set forth below are not guides for Proposal submissions but are FIRM limits. Pages in excess of the stated limitations will not be considered in the evaluation of the Proposal.

L.5. (a) PAST PERFORMANCE

(1) Past Performance References – 6 Page Limitation

The offeror must demonstrate that they have successfully performed relevant services to those described in this solicitation. This requirement may be satisfied by the combined performance of required services under one or more contracts, or through separate performance of required services under multiple contracts. A representative sample of at least 3 but no more than 6 references must be provided. References should be no older than three years after completion of contract performance.

For offers from joint ventures, past performance records of the joint venture and both firms may be considered. An offeror may also submit a past performance record for a joint venture in which they were a party; however, they must clearly specify their role and contribution to the joint venture. In accordance with FAR 15.305(a)(2)(iii), the evaluation will take into account past performance information regarding predecessor companies, key personnel who have relevant experience, or subcontractors that will perform major or critical aspects of the requirement when such information is relevant as long as it is properly identified.

Note: The Government is not limited to only those references provided by the offeror. The Government may also consider the Offeror's performance on contracts not submitted by the Offeror that the Government is aware of or becomes aware of as a result of reference interviews. Information in the Past Performance Information Retrieval System (PPIRS) will also be reviewed and considered.

The offeror must submit **at least 3 but no more than 6** past performance references including the following contract and respondent information **only**.

<u>Contract Identification:</u>

Contractor Name:
Contract Number:
Contract Scope: [Indicate type of contract (full maintenance, operations and maintenance, facility management, etc.)]
Dates of Contract Performance:
Square Footage of Each Building:
Type of Space Serviced:
Building Name, Address, City, and State of space serviced:
Total Contract Value (including options):

<u>Respondent Identification:</u>

Name:

Title:
Agency/Company:
Address:
Telephone:
E-mail:

(2) Past Performance Questionnaires submitted – No Page Limitation

Past Performance Questionnaires submitted will not be counted as part of the 6 page Past Performance References page limitation.

The Offeror is responsible for sending Past Performance Questionnaires to at least 3 of their customers prior to the closing date of this solicitation. At least 3 Past Performance Questionnaires **must** be chosen from the Past Performance References submitted above.
The "PBS Past Performance Questionnaire" attached to this solicitation **must** be utilized for this purpose. See attachment entitled, "PBS Past Performance Questionnaire".

Past Performance Questionnaires must be received by the Contracting Officer by the **due date for receipt of proposals.**

The Offeror shall **e-mail** the Past Performance Questionnaires to the Past Performance References and instruct the references to e-mail their responses directly to the **GSA Contract Specialist, Stephan Harris, stephan.harris@gsa.gov.**

Optional e-mail instructions are provided below to assist in requesting this information:

We are preparing a Proposal for Operations & Maintenance Services, Solicitation No. GS-07P-15-JU-D-0021 in the El Paso, TX area. The solicitation requires submission of Past Performance Questionnaires. See attached PBS Past Performance Questionnaire.

In accordance with the solicitation instructions, the following Past Performance Questionnaire must be filled out and e-mailed to the **GSA Contract Specialist, Stephan Harris., stephan.harris@gsa.gov.**

Please ensure the Past Performance Questionnaire is received by the Contracting Officer on or before July 21, 2015 at 3:00 p.m. CST. The e-mail subject line should be marked "Past Performance Questionnaire – Solicitation No. GS-07P-15-JU-D-0021 for Operations & Maintenance Services, El Paso, TX".

L.5. (b) MANAGEMENT PLAN

This section has a 15 page limitation.

The Offeror's Management Plan must demonstrate that all the services required by this solicitation will be satisfactorily performed. The Offeror shall explain in its Management Plan how it will continuously identify, mitigate, manage, and control risks. The Offeror must convey its ability to insure successful performance.

The Offeror shall demonstrate a clear understanding of the management and performance requirements of this solicitation by providing a concise description of its management approach for the following topics: Resources; Project Management; Corporate Commitment; Management Plan Worksheet; and Special Skills, Licenses, Certifications, or Equipment.

The **15 Page** Limitation for Management Plan **only** includes Resources, Project Management, and Corporate Commitment.

Resources

The Offeror shall describe its plan to have adequate resources readily available to respond to the Statement of Work.

The Offeror shall describe current core capabilities, such as its ability to recruit, train, and retain high quality personnel, the number of in-house personnel with adequate security clearances and level of clearance.

The Offeror shall describe its procedures and methods for how it will supplement its core internal capabilities in order to meet all contractual requirements.

The Offeror should specifically address those areas not covered by the internal resources such as the methodology for selecting, tracking, and managing subcontractors and other teaming arrangements, as applicable; approach to support continuity of operations in response to sudden workload surges.

The Offeror shall provide a list of work that will be subcontracted for each facility covered by the Statement of Work.

Project Management

The Offeror shall describe quality controls and surveillance methodologies employed to insure quality performance and compliance with all contractual requirements.

The Offeror shall explain the methodology for risk minimization, schedule controls, and efficient utilization of resources for ensuring work accomplishment.

The Offeror shall indicate its ability to effectively manage the Computerized Maintenance Management System (CMMS) for O&M and repairs record keeping requirements.

Corporate Commitment

The Offeror shall provide the names of individuals who will fill the key positions in their organization reflecting the lines of authority, responsibilities, and authority to act and to commit for timely problem identification and quick mitigation.

Management Plan Worksheet

The **Management Plan Worksheet** does **not** count towards the **15 Page** Limitation for the Management Plan Proposal.

(a) Worksheet Instructions.

The Management Plan Worksheet attached to this solicitation **must** be utilized for this purpose. See the Microsoft Excel Attachment, Section J.8., entitled, "Management Plan Worksheet" FIGURE L-1. No other Management Plan Worksheet will be considered.

The Management Plan Worksheet must be filled out according to the following instructions.

(1) An example has been provided as a guide for how to fill out the worksheet only.

(2) Boxes highlighted in blue and purple are the only input areas allowed by the Offeror. After inputting the required data, the Excel spreadsheet will automatically calculate the other data.

(3) The Management Plan Worksheet must include supervisory and productive work schedules indicating classification of employees for each facility covered by the Statement of Work. When inputting the supervisory classification, the offeror must include "(SUPERVISORY)" next to the position title. When calculating the number of Productive Employees, GSA will not include the hours of the Supervisory employees.

(4) Work schedules must be broken out according to LOCATION – See Section C.1.1.

(5) The labor DISCIPLINE must match the discipline as stated in the Department of Labor Wage Determination or CBA as applicable.

(6) 2080 Hours is considered 1 Full Time Equivalent (FTE). This is the maximum number of work hours per year.

(7) WORK SCHEDULE for each discipline. See Normal Operating Hours under Exhibit 5, J.5., Normal Operation Hours.

(c) Additional information regarding Management Plan Worksheet:

The staffing/labor mix proposed in the Management Plan Worksheet **must** be adhered to for the Base year period of performance**. 60 days** prior to issuance of the first Option Period, an annual review of the mix of labor will be conducted. Any requests for changes to the Management Plan Worksheet may be submitted and considered at that time. Any deviation from the accepted Management Plan Worksheet may result in deductions in accordance with the formula identified in the Criteria for Deductions.

Special Skills, Licenses, Certifications, or Equipment

Special Skills, Licenses, Certifications, or Equipment does **not** count towards the **15** Page Limitation for the Management Plan Proposal.

The following list identifies work that requires special skills, licenses, certifications, or equipment. Identify specifically whether this work will be accomplished by Contractor employees or Subcontractor(s). Submit copies of licenses, certifications, proof of special skills, of any contractor personnel that will be utilized for any of the below requirements, and detail how special equipment will be provided.

Switchgear maintenance
Electrical distribution system
Generator maintenance
Water treatment
Central station monitoring
Fire alarm systems maintenance
Energy management system
Backflow preventer maintenance
Chiller maintenance
Boiler maintenance
Other (explain)

L.5. (c) EXPERIENCE

This section has a **10 page limitation**.

The offeror must demonstrate that they have at least 3 years relevant experience within the last 5 years, successfully providing contract services that are similar in nature to the size, scope, and complexity of the services being required by this solicitation. This requirement may be satisfied by the combined performance of required services under one contract, or through separate performance of required services under multiple contracts.

Briefly describe all services provided under each project as follows:

(1) Description: Describe the full Scope of Services provided

(2) Control: Describe the autonomy and authority of the Project Manager.

(3) Complexity: List any special mechanical equipment, operations that exceed 10 hours per day, locations with heavy visitor traffic, or high maintenance tenants, etc.

(**4) Type of facility(ies**): Indicate type of facility (multi-story office buildings, courthouses, border stations, and warehouses).

(5) Size of facility(ies): Indicate size of each facility. Note: The facilities covered by this solicitation encompass 1,290,464 aggregate square feet in approximately 12 buildings (buildings range in size from 444 square feet to 210,800 square feet).

(**6) Price**: Total contract value (including options)

(7) Performance starts and end dates for each contract.

L.6. PRICING PROPOSAL REQUIREMENTS

The pricing proposal submission requirements and outline, as set forth below, shall be in consideration of the required services as described in the solicitation.

The “Pricing Sheet” attached to this solicitation must be utilized for this purpose. See the Microsoft Excel Attachment, Section J.3., entitled, “Pricing Sheet” FIGURE B-3, Pricing of O & M Services. No other pricing template will be considered.

The Offeror shall only fill in the shaded areas of the pricing template for the Base Period, Option I, Option II, Option III, Option IV, Option V, Option VI, Option VII, Option VIII, and Option IX. Failure to propose pricing as specified below will result in a rejection of the offer based on non-responsiveness.

(a) Basic Services (See Section B.1.1. of the pricing sheet): The Offeror must propose a price per month for Operations & Maintenance services for facilities listed in Section C.1.1.

(b) Material Markup Coefficient (See Section B.1.3. of the pricing template): Material markup coefficient is defined as a fixed rate applied to all material handling fees and profit to be used at the reimbursable repairs or additional services level under this contract. No additional labor or material markup is allowable.

The Offeror must propose a fixed material markup coefficient to be used at the reimbursable repairs or additional services level under this contract. The material markup will apply to parts, equipment, and materials as they relate to reimbursable repairs or additional services. The material markup will be evaluated independently from the total evaluated price. The proposed material markup rate will be fixed throughout the life of the contract for reimbursable repairs or additional services under Section B.1.3.

L.7. INCONSISTENCIES IN THE STATEMENT OF WORK (SOW)

Offerors are prohibited from modifying, in any way, shape, or form, any documents, printed or electronic, associated with this solicitation, including, but not limited to, the SOW and any amendment(s) thereto. The electronic solicitation documents, as posted on FedBizOpps.Gov (http://www.fedbizopps.gov) shall be the "official" documents for this solicitation. Any inconsistency between the official documents posted on FedBizOpps.Gov and the offeror's copy of these documents shall be resolved by giving precedence to the official documents posted on FedBizOpps.Gov. Additionally, any other documents provided to the offeror by the Government via first class mail, express mail, electronic mail, or any other delivery method, shall be considered official documents, and shall not be altered.

SECTION M – EVALUATION FACTORS FOR AWARD

M.1. FAR 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)
This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer.

Also, the full text of a solicitation provision may be accessed electronically at this address: https:/www.acquisition.gov/far.

CLAUSE #	CLAUSE TITLE	DATE
52.217-5	Evaluation of Options	JUL 1990

M.2. BASIS FOR AWARD

Award will be made to a responsible offeror whose proposal is determined to provide the best value to the Government. When in the best interest of the Government, the Government may award to other than the lowest priced offeror or other than the highest technically rated offeror.
The Government intends to evaluate the proposal and award a contract without discussions with the offeror, except for clarifications, as described in FAR 15.306(a). Therefore, the initial proposal should contain the offerer's best terms from a Technical and Price standpoint. The Government reserves the right to conduct discussions if determined necessary.

Definitions:

Relevant is defined as: The control, scope, and complexity of services, and type and size of the facility(ies) serviced by the offeror are **similar** to what is required under the solicitation.

Similar is defined as: possessing the same or almost the same elements as to what is required under the solicitation.

Successful is defined as: Consistently meeting or exceeding to perform the required services.
Relevant and Successful Past Performance and Experience will consider the following:

(1) **Scope** – The types of services provided are Operations & Maintenance in nature.
(2) **Control** – The extent of onsite Project Manager autonomy without corporate approval. (For example: The onsite ability of the Project Manager to hire/terminate personnel, ability to purchase needed supplies, materials, and equipment, etc.)
(3) **Complexity** – The extent of obstacles to basic services. (For example, unique or specialized equipment, operations exceeding 10 hours per day, difficult locations with heavy visitor traffic, unique or specialized customer requests, etc.)
(4) **Type of Facility(ies)** – The variety of types of facilities (For example, multi-story office buildings, courthouses, border stations, and warehouses).
(5) **Size of Facility(ies)** – multi-story (three stories minimum), 300,000 gross square feet or more for an individual building
(6) . (See Section C.1.1.).

M.3. TECHNICAL EVALUATION

The following 3 Technical Factors are of equal importance. Technical Factors, when combined, are significantly more important than Price, however; when Technical scores become more equal in their technical merit, price considerations become more important.

(1) Past Performance.

The offeror's past performance will be evaluated on the relevancy and successfulness of services performed to the services required under this solicitation, the record of conforming to contract requirements and standards of good workmanship, and the history of reasonable and cooperative behavior and commitment to customer satisfaction.
In the case where an offeror has relevant and successful past performance in addition to the 3 submitted past performance questionnaires or the Contracting Officer did not receive at least 3 past performance questionnaires under this solicitation, the Contracting Officer may contact any of the possible 6 references the offeror submitted under Section L. The Contracting Officer may rely on recent relevant and successful past performance or any other past sources such as interviews with Contracting Officers, Contracting Officer Representatives, Equipment and/or Building Management Specialists, or Small Business Administration representatives. In addition the Contracting Officer may rely on past performance information reported in the Past Performance Information Retrieval System (PPIRS) or other past performance systems.

In the case of an offeror without a record of relevant and successful past performance or for whom information on past performance is not available, the offeror will be given a neutral rating.

For joint ventures, past performance records of both firms will be considered.

In accordance with FAR 15.305(a) (2) (iii), the evaluation will take into account past performance information regarding predecessor companies, key personnel who have relevant experience or subcontractors that will perform major or critical aspects of the requirement when such information is relevant.

(2) Management Plan.

The Management Plan will be evaluated on how well the offeror demonstrates a clear understanding of the service requirements and the ability and approach to provide adequate resources, to identify, mitigate, manage, and control risks for successful performance.

(3) Experience.

The offeror will be evaluated on (at least 3 years experience within the last 5 years) the relevancy and successfulness of experience to those services required by this solicitation.

M.4. PRICE EVALUATION

The Government may use various price analysis techniques and procedures to evaluate price.

Total evaluated price will be calculated by adding the total price for the base and option periods combined.
If the Option to Extend Services is exercised pursuant to FAR 52.217-8, the rates will be the same as the immediately preceding contract period which were evaluated at time of award to be fair and reasonable, and may be adjusted only as a result of revisions to prevailing labor rates provided by the Secretary of Labor.